



## DATABASE & METHODS CYBERSEMINAR SERIES

Session 5:

Overview of CMS & USRDS Data from VIREC

February 7, 2022

Kristin de Groot, MPH

Project Director, VA/CMS Data for Research Project

VA Information Resource Center (VIREC)



# DATABASE & METHODS CYBERSEMINAR SERIES

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

## Sessions cover...

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



## UPCOMING DATABASE & METHODS SESSIONS

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

Date	Topic
3/7/22	Ascertaining Veterans' Vital Status: Data Sources for Mortality Ascertainment and Cause of Death
4/4/22	Assessing Race and Ethnicity in VA Data
5/2/22	An Introduction to VA Pharmacy Data: Sources and Uses for Medication Information

Visit our Education page for more information & registration links:

<https://bit.ly/39B1JUo>

Visit HSR&D's VIREC Cyberseminar Archive to watch previous sessions:

<https://bit.ly/3dZFJWG>

# Where can I download a copy of the slides?



## SAMPLE EMAIL

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

Event number (access code): 199 009 5117

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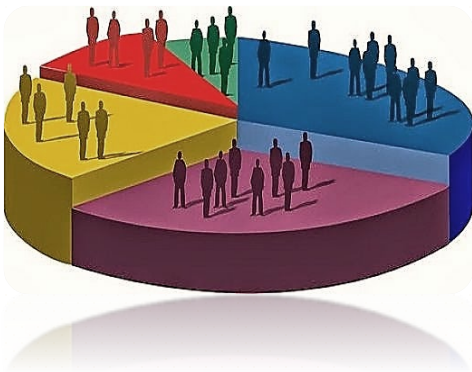
Access code: 199 009 5117

[Please download today's slides](#)

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

# Poll #1:

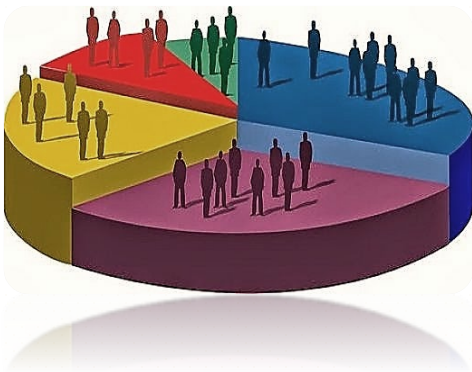
*What is your primary **role** in projects using VA data?*



- 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



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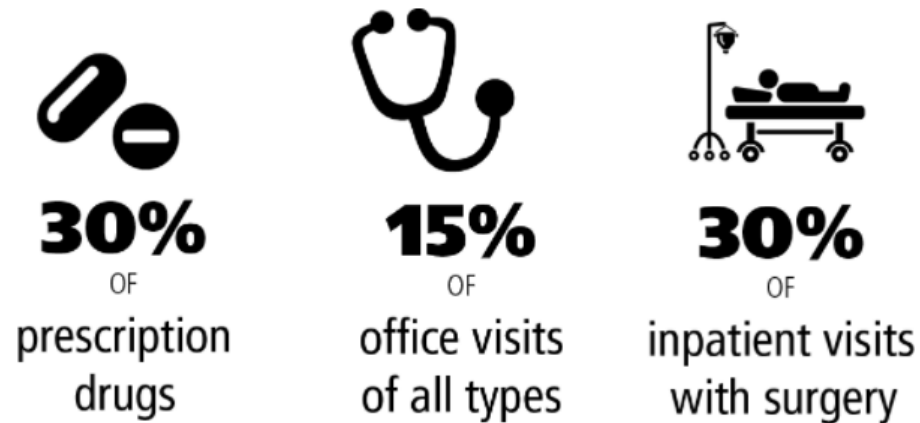
Project Director, VA/CMS Data for Research Project

VA Information Resource Center (VIREC)

# Source of Veterans' Healthcare

## In VHA

Figure 3. VA Patients Rely on VA for Only a Part of Their Health Care



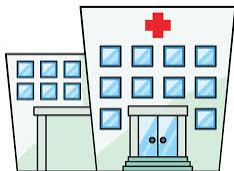
Balancing Demand and Supply for Veterans' Health Care.  
RAND Health Quarterly, 2016; 6(1):12.  
<https://www.rand.org/pubs/periodicals/health-quarterly/issues/v6/n1/12.html>

## Outside of VHA

- VHA Community Care
- Tricare
- Private Insurance
- Medicare
- Medicaid

# Where's the data?

VA Medical  
Center



VA pays

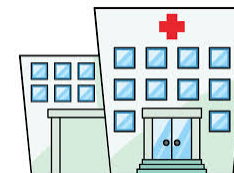
Community  
Hospital



VA pays

Community Care  
Fee Basis  
Veteran Choice  
Mission Act  
Emergencies

Community  
Hospital



Medicare or  
Medicaid pays

VA data

CMS data

## What is CMS?

Centers for  
Medicare and  
Medicare Services

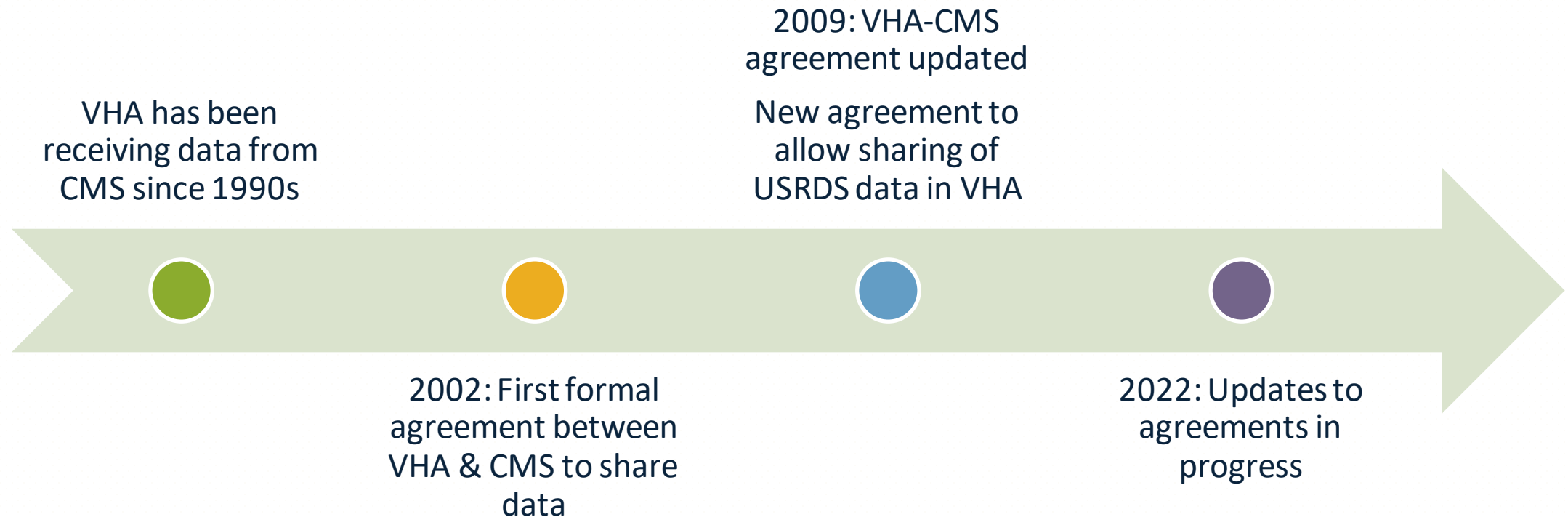
Subagency under  
Department of  
Health and Human  
Services

- Administers & oversees
  - Medicare
  - Federal portion of Medicaid
  - State Children's Health Insurance Program (SCHIP)
  - ACA Marketplace (healthcare.gov)
- Ensures that services are accessible and of high quality
- Develops health and safety standards for providers of health services provided through Medicare & Medicaid
- Health insurance portability standards (HIPAA)
- And more...

# Objectives

1. Describe **CMS and US Renal Data System (USRDS) data** that can be used to assess Veterans' health services use outside VHA
2. Discuss **strengths and limitations** of several types of CMS data
3. Provide guidance on which CMS data may be most beneficial based on **specific research objectives or cohorts**
4. Explain how to **access** and where to find **support** for working with CMS data

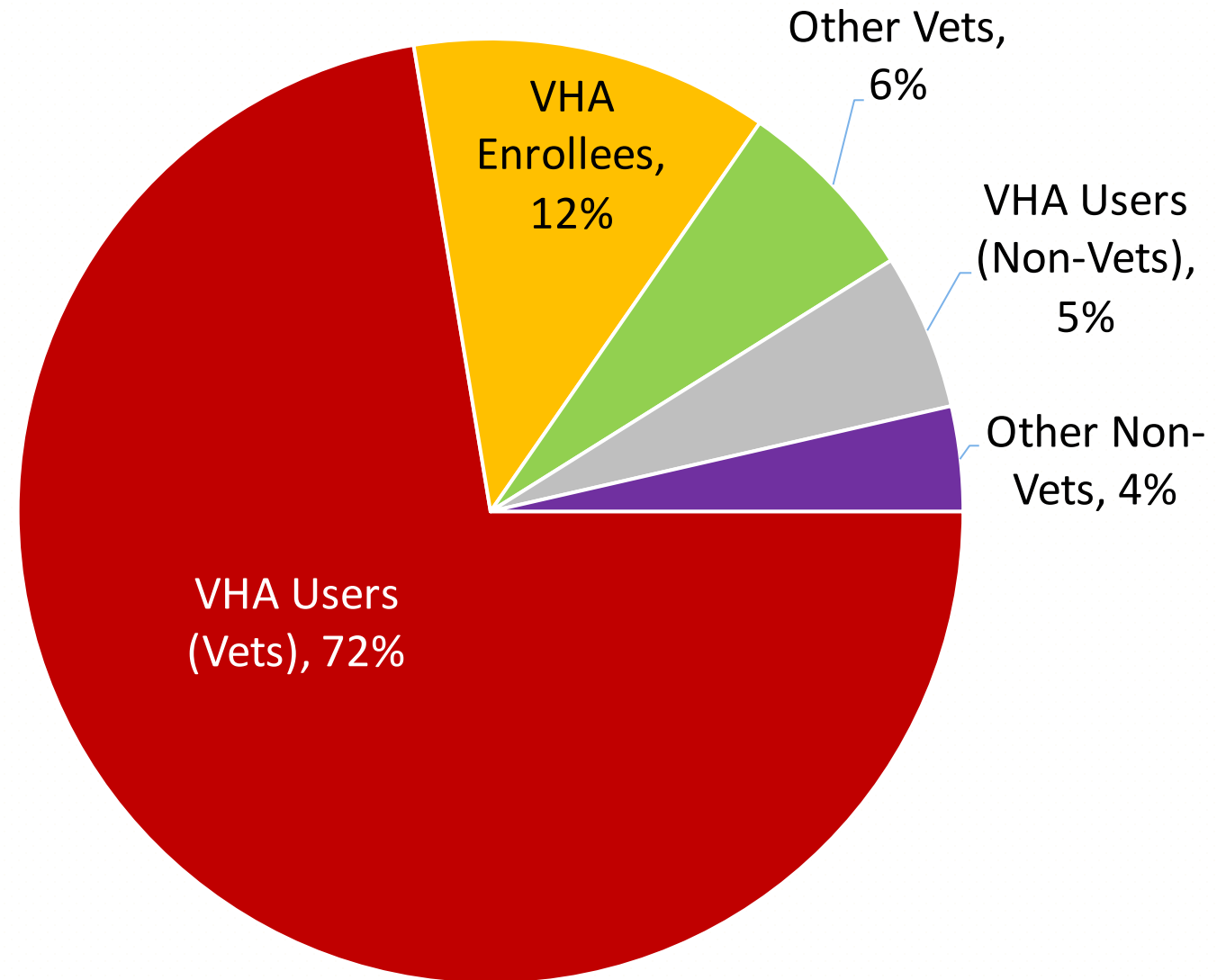
# History of CMS & USRDS data in VHA



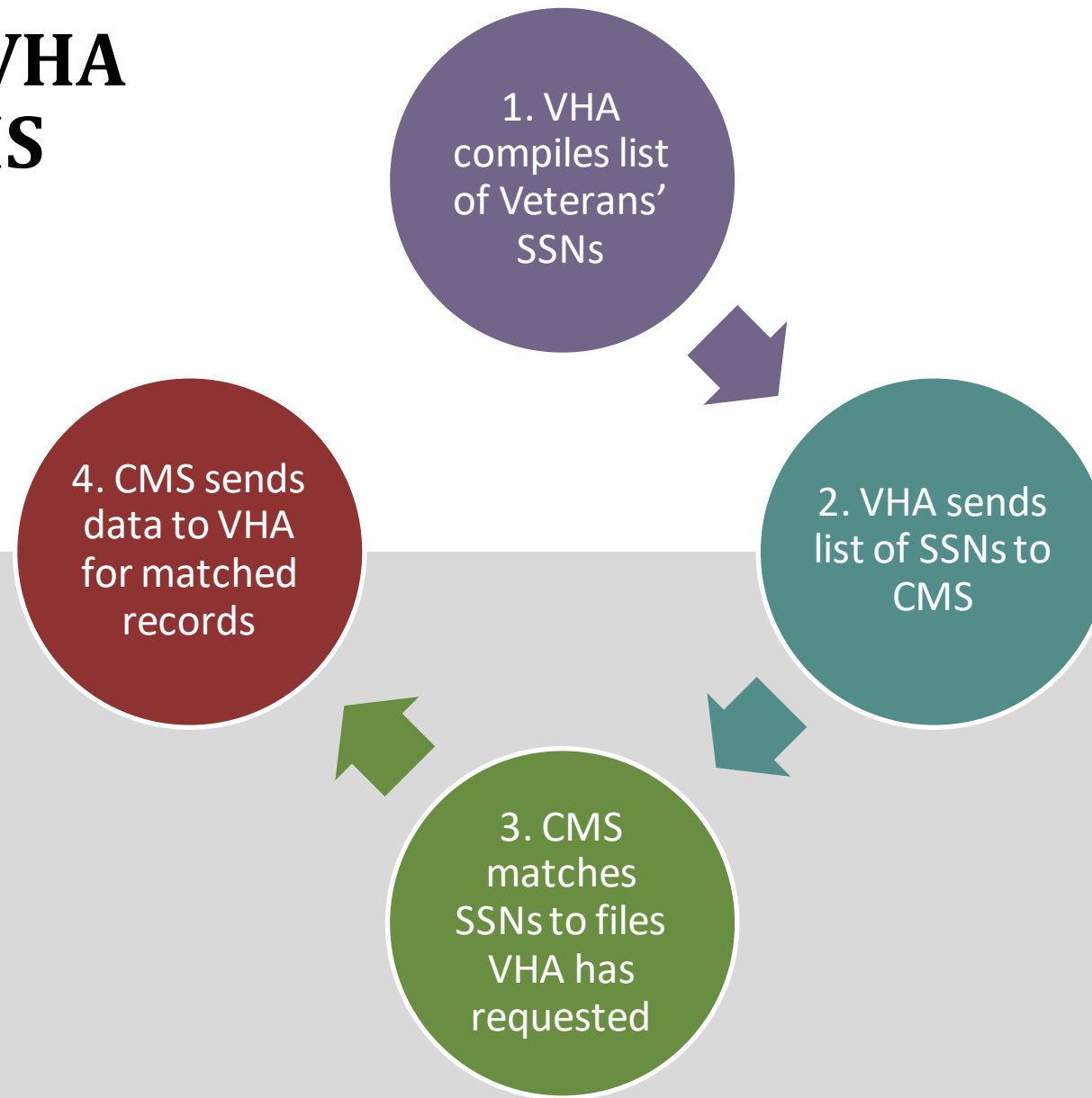
# Who's included in the VHA's CMS data?

## VHA Cohort

- Does NOT include all Veterans
- Includes
  - VHA users
  - VHA enrollees
  - Some recipients of VA benefits
- Includes some non-Veterans (family members, active DOD)
- Cumulative
- Alive and deceased

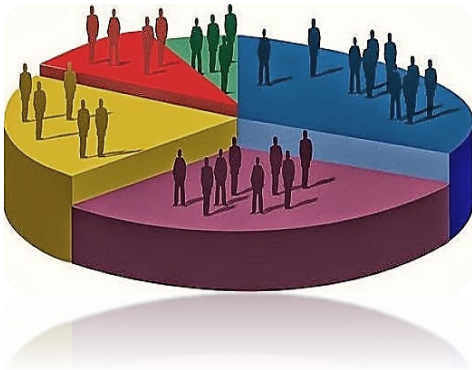


# Process for VHA to obtain CMS data



## Poll #3:

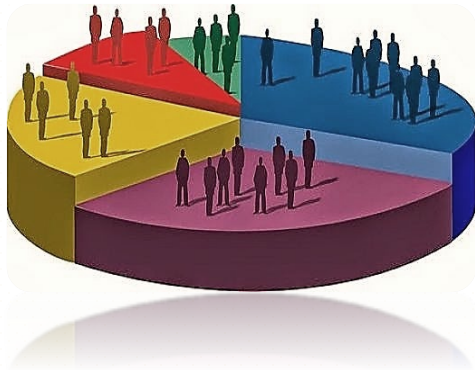
*What types of CMS data have you used?  
(Select all that apply)*



- Medicare utilization
- Medicaid utilization
- Medicare Advantage HEDIS
- Medicare survey (MCBS)
- Assessment data
- US Renal Data System (USRDS)
- Provider data

## Poll #4:

*What types of CMS data do you want to learn more about?  
learn more about?  
(Select all that apply)*



- Medicare utilization
- Medicaid utilization
- Medicare Advantage HEDIS
- Medicare survey (MCBS)
- Assessment data
- US Renal Data System (USRDS)
- Provider data

# Session roadmap

- Medicare & Medicaid Enrollment
- Medicare & Medicaid Utilization
- Other CMS Data
- USRDS Data
- Which files should I use?
- Data AAA (Access, Availability, & Assistance)

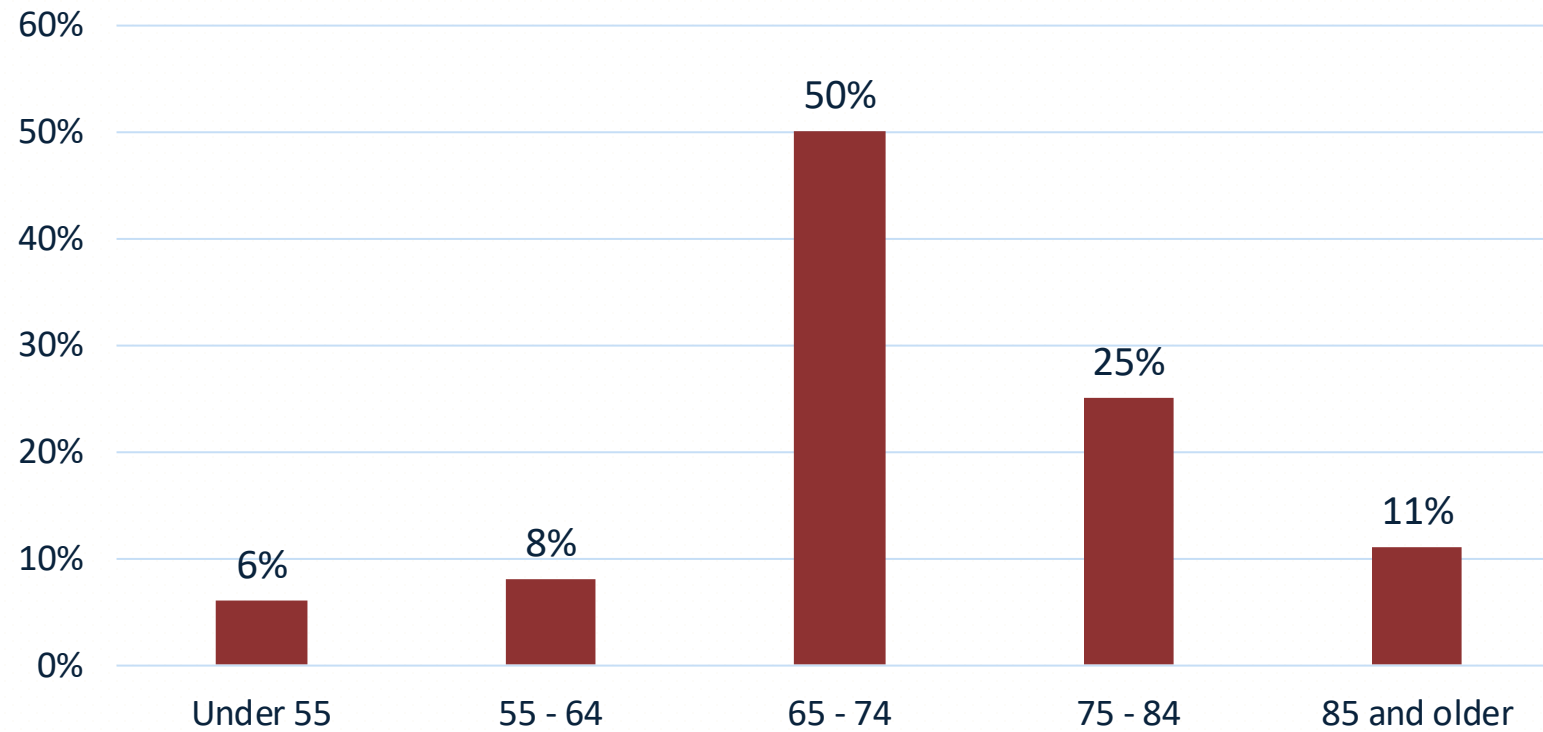
# Session roadmap

- Medicare & Medicaid Enrollment
- Medicare & Medicaid Utilization
- Other CMS Data
- USRDS Data
- Which files should I use?
- Data AAA (Access, Availability, & Assistance)

	<b>Medicare</b>
Administered by	CMS (federal)
Number enrolled (2018)	63 million
Population Covered	Age 65+ Disabled End Stage Renal Disease (ESRD)
Benefits	National set of benefits

# Who is enrolled in Medicare?

Age of Medicare Enrollees, 2018

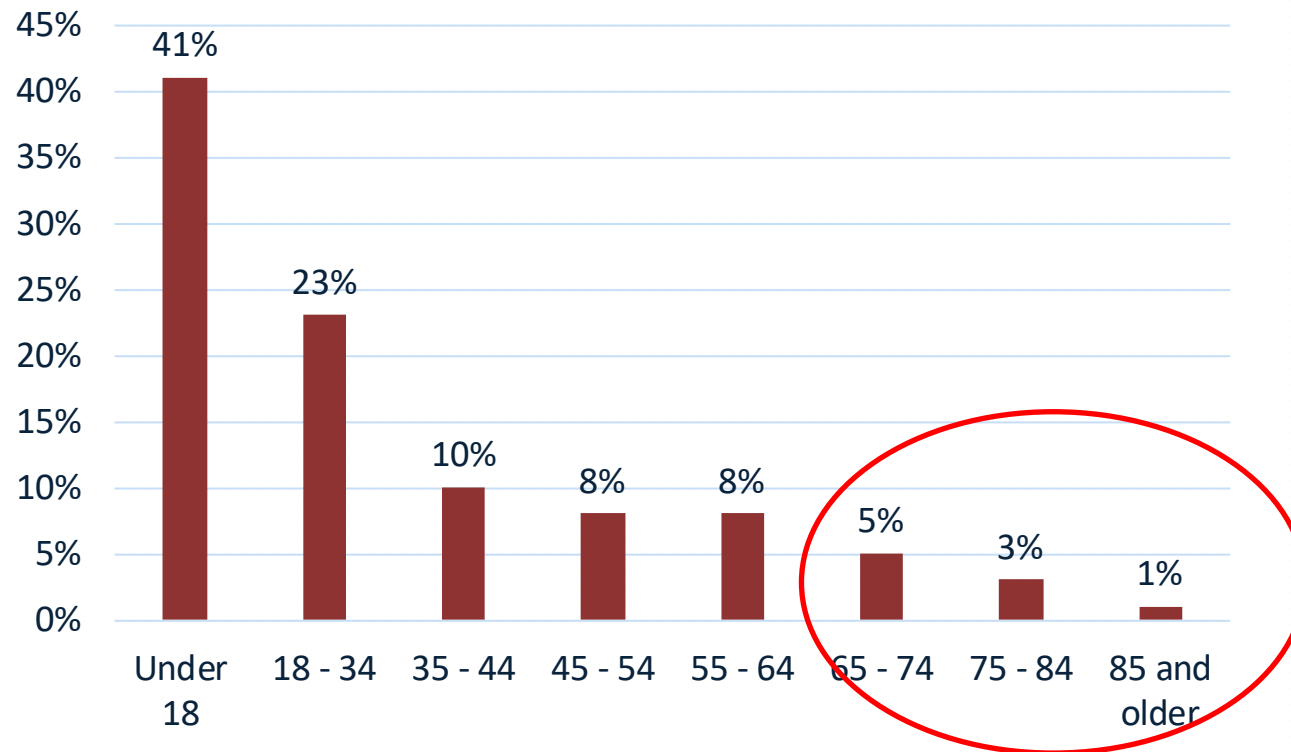


Medicare enrollees  
with End Stage Renal  
Disease (ESRD)  
  
~600,000 (1%)

	<b>Medicare</b>	<b>Medicaid</b>
Administered by	CMS (federal)	States, with federal (CMS) requirements & funding
Number enrolled (2018)	63 million	99 million
Population Covered	Age 65+ Disabled End Stage Renal Disease (ESRD)	Varies by state, at minimum: Low income children, pregnant women, disabled, elderly
Benefits	National set of benefits	Varies by state, minimum set of benefits set by CMS

# Who is enrolled in Medicaid?

Age of Medicaid Enrollees, 2018



## Reason for Medicaid Eligibility

27% Infants and Children

14% Adults  $\leq$  133% FPL

11% Parents and other caretakers

8% Individuals receiving SSI

4% Targeted low-income children

3% Individuals Eligible for Family Planning Services

3% Qualified Medicare Beneficiaries

.....And 68 more categories

	<b>Medicare</b>	<b>Medicaid</b>
Administered by	CMS (federal)	Joint federal + state
Number enrolled (2018)	63 million	99 million
Population Covered	Age 65+ Disabled End Stage Renal Disease (ESRD)	Varies by state, at minimum: Low income children, pregnant women, disabled, elderly
Benefits	National set of benefits	Varies by state, minimum set of benefits set by CMS



12 million  
dual  
eligibles

# Medicare & Medicaid Dual Eligibles

High rates of chronic illness

- 41% have a mental health diagnosis
- 49% receive long term care

Types of benefits

- 71% - full Medicaid benefits
- 29% - partial Medicaid benefits: Medicaid pays Medicare premiums and/or cost sharing (QMB, SLMB, QI, QDWI)

Who pays?

- If a person has both Medicare & Medicaid, Medicare pays first
- Medicaid pays for services not covered by Medicare

[https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/Downloads/MMCO\\_Factsheet.pdf](https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/Downloads/MMCO_Factsheet.pdf)

# Enrollment Data

## Medicare

- One record per person, per calendar year
- 91% enrolled full year (2018)
- Monthly indicators for
  - Reason for eligibility
  - Medicaid (dual eligible)
  - Part A, Part B, Part D
  - Managed Care

## Medicaid

- One record per person, per state, per calendar year
- 64% enrolled full year in 2018
- Monthly indicators for
  - Reason for eligibility
  - Medicare (dual eligible; Full/partial)
  - Waivers
  - Managed care
  - And more

# Fee for Service (FFS) vs Managed Care (MC)

## Medicare

- 36% in managed care in 2018
  - aka Medicare Advantage

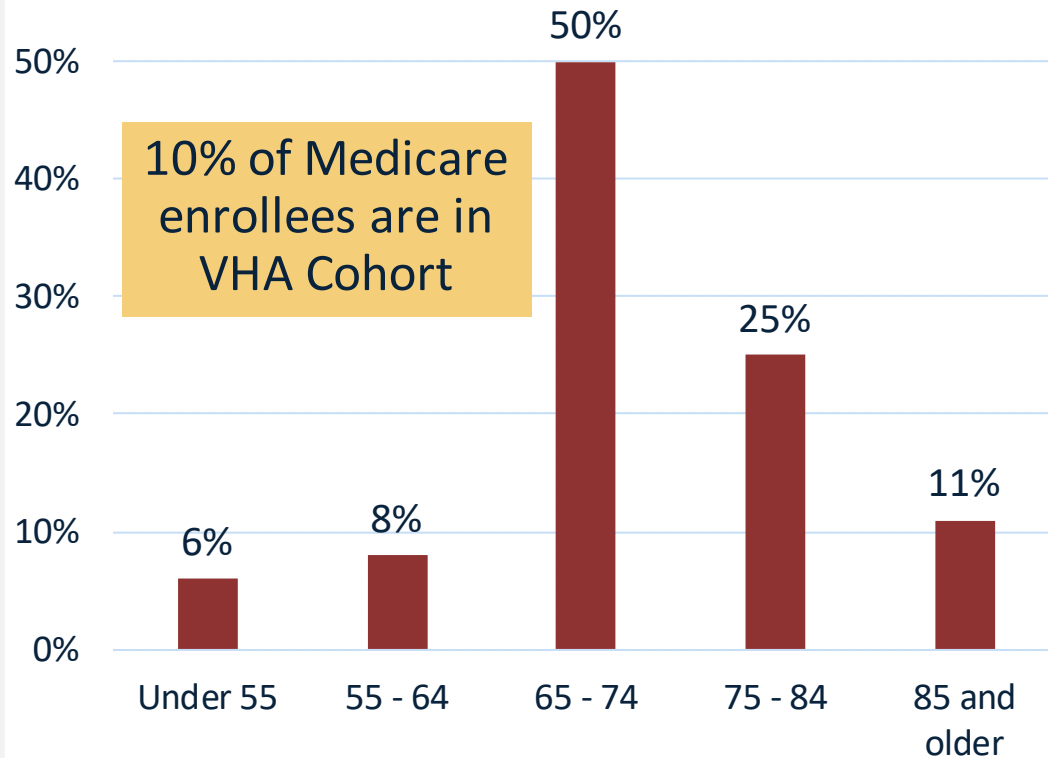
## Medicaid

- 80% in managed care in 2018
- MC enrollment varies by state & reason for eligibility
- Many types of managed care
- A person could have different enrollment for different types of care

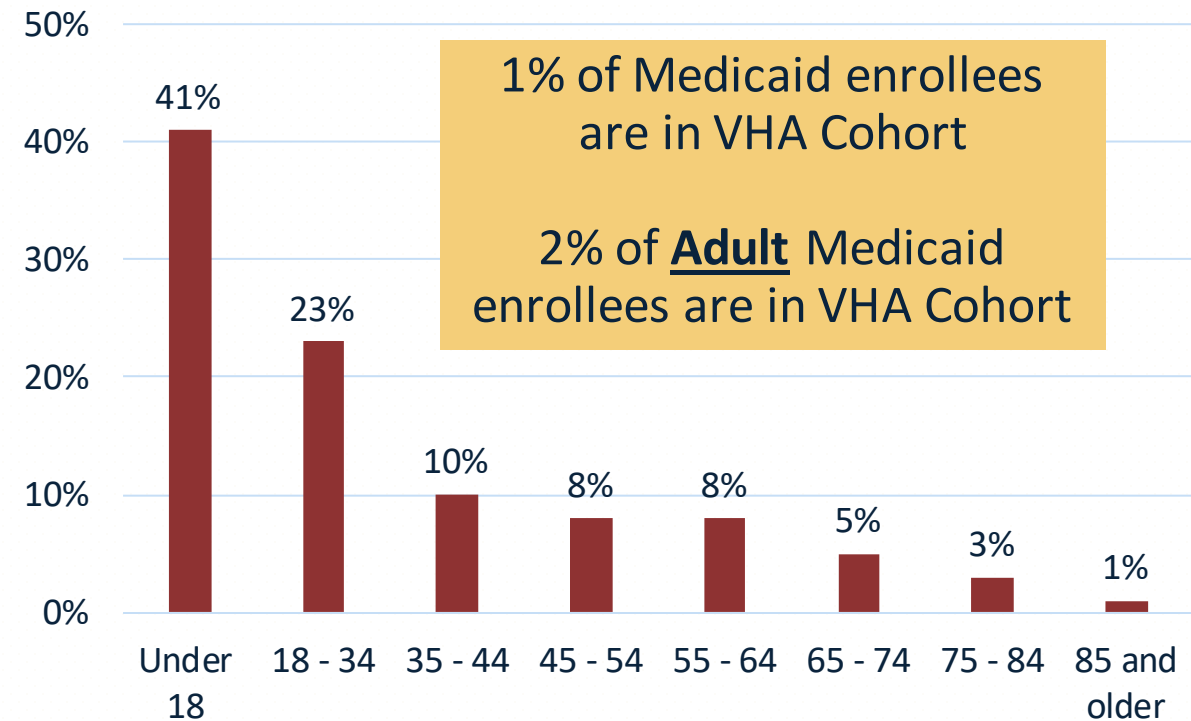
# Veterans' Enrollment in Medicare & Medicaid

# How many people enrolled in Medicare & Medicaid are in the VHA Cohort?

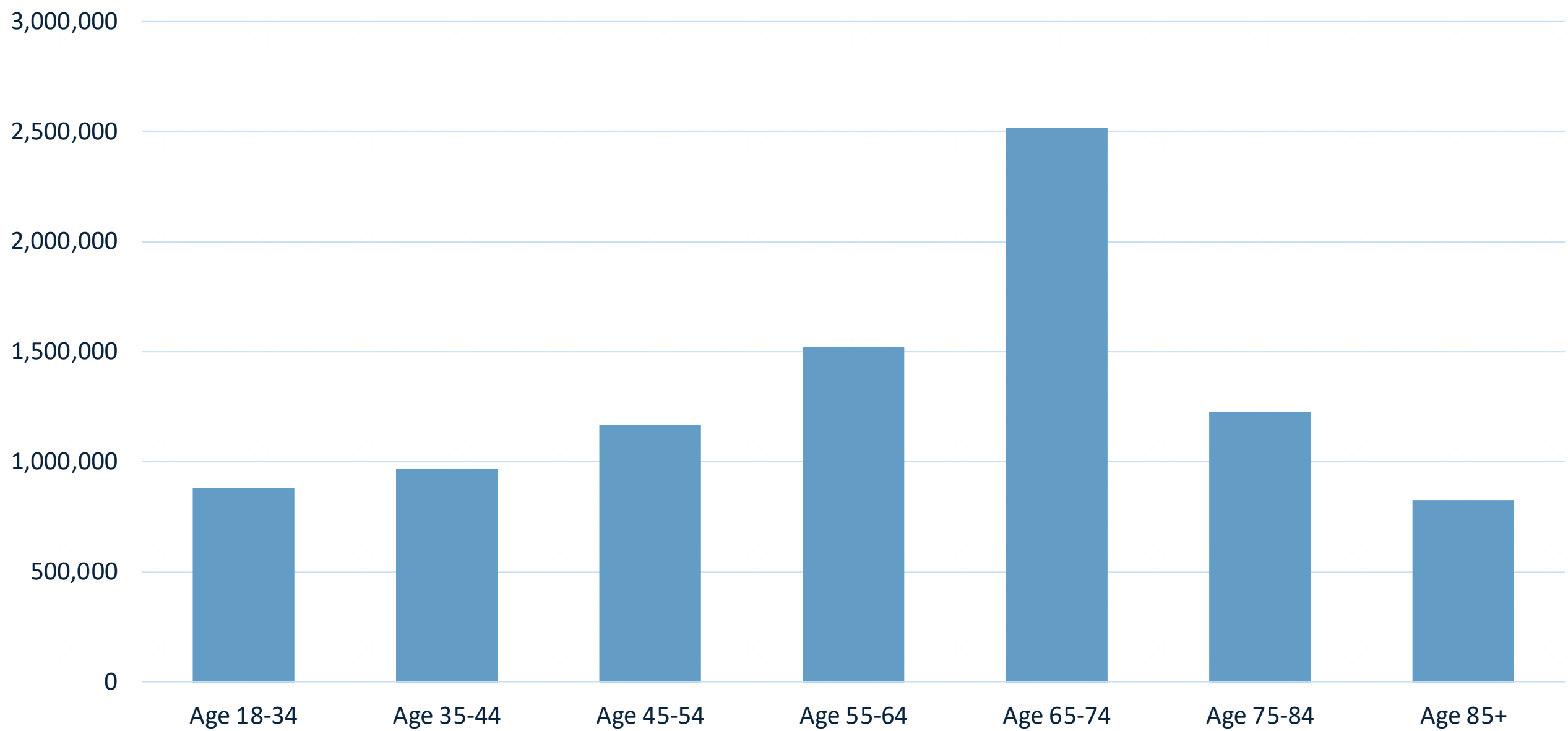
Age of Medicare Enrollees, 2018



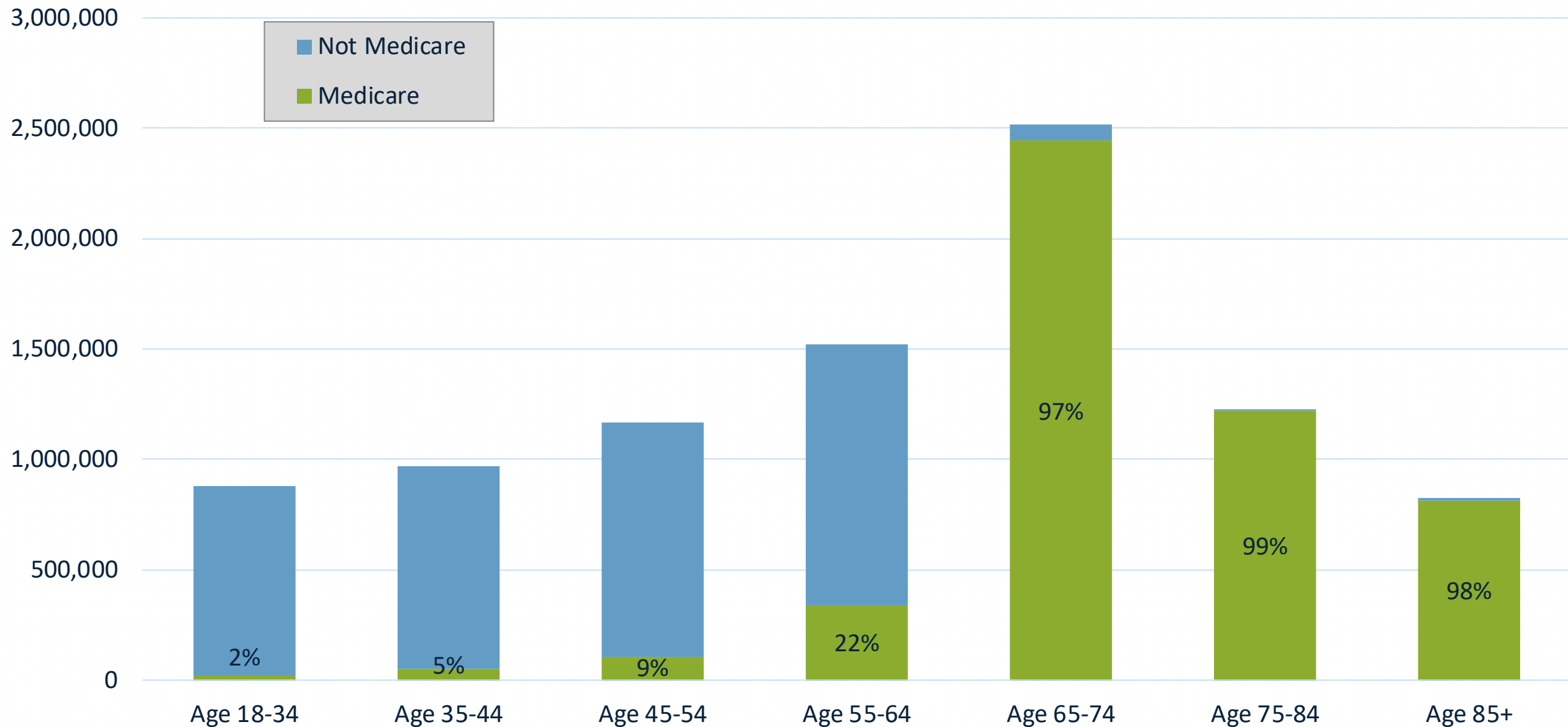
Age of Medicaid Enrollees, 2018



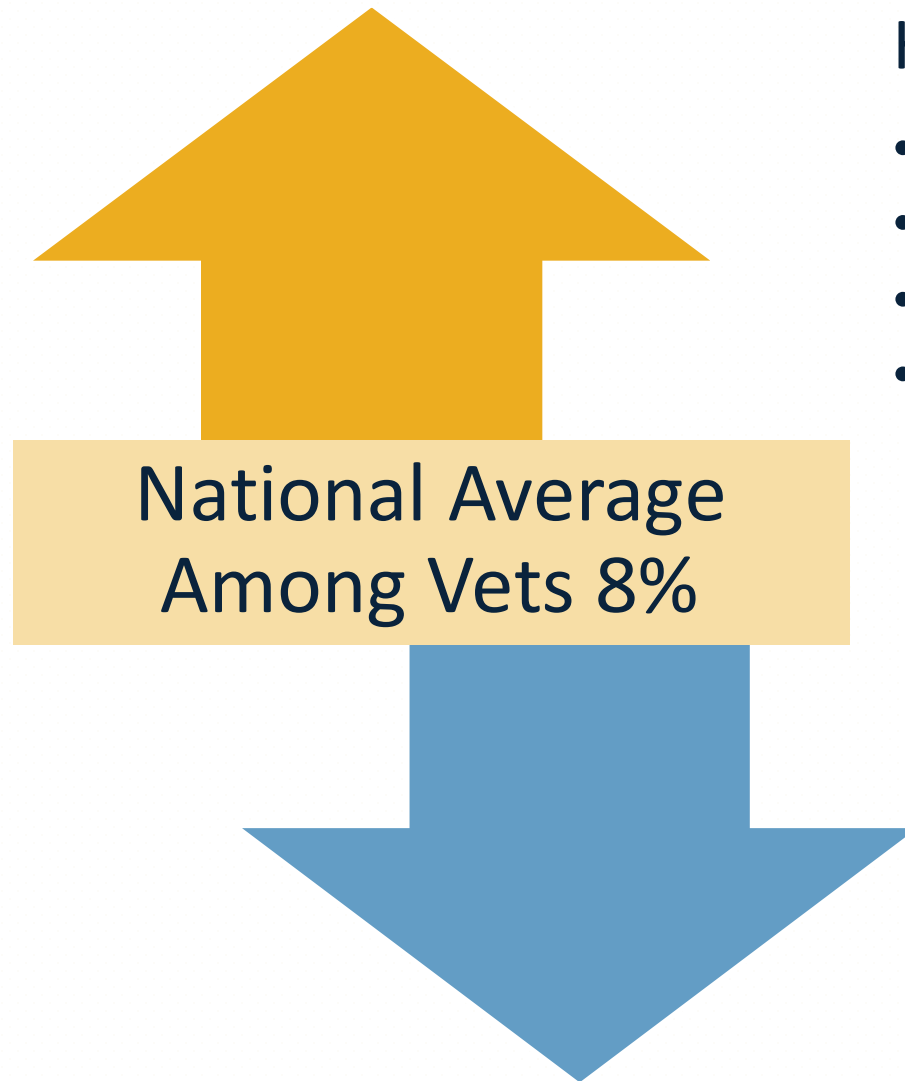
# FY18 VHA enrollees, by age



# FY18 VHA enrollees' in Medicare, by age



# Medicaid enrollment among VHA enrollees, by state, FY18



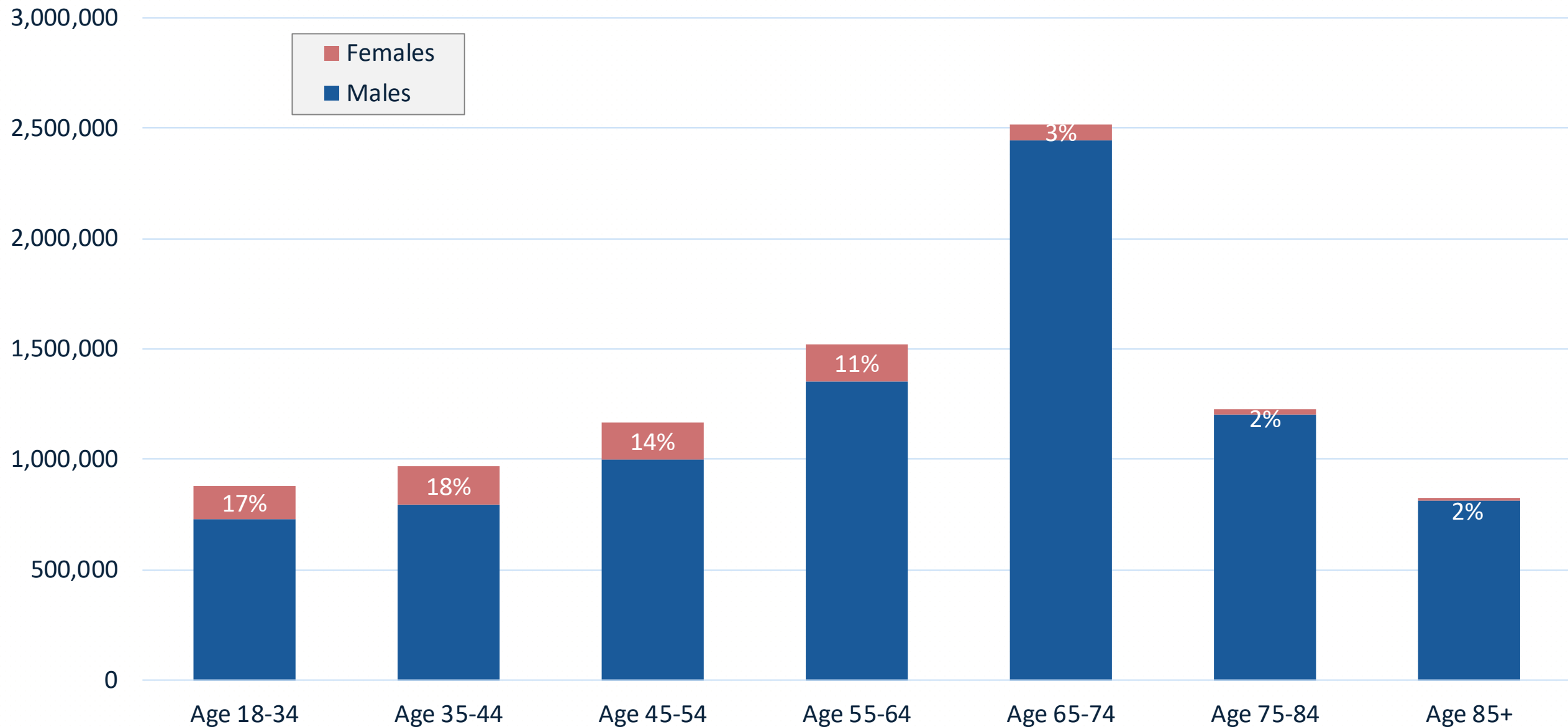
## Highest

- 23% District of Columbia
- 17% Connecticut
- 14% New Mexico
- 12% California, Massachusetts, Maine, Vermont, New York

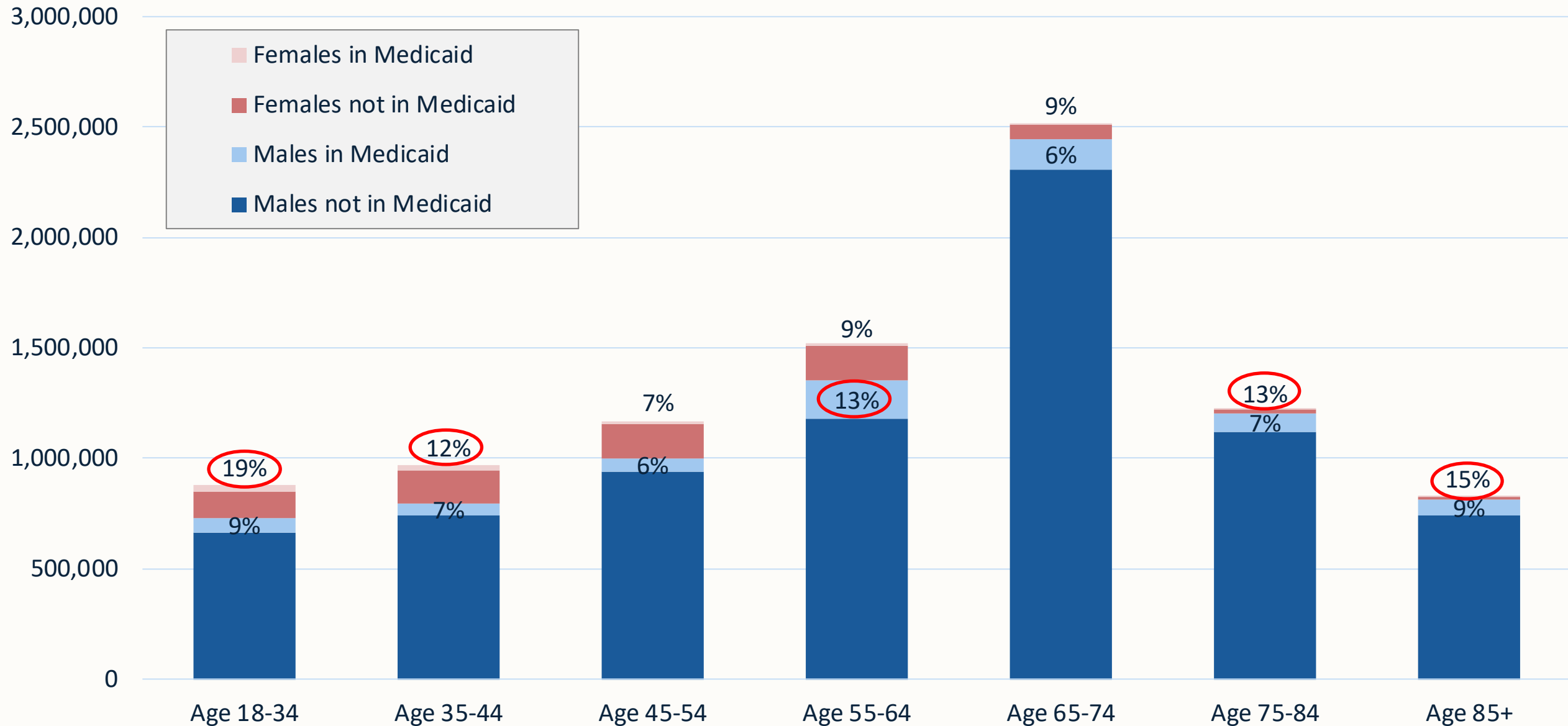
## Lowest

- 5% Wyoming, Oklahoma, Missouri, New Hampshire, South Dakota
- 4% Texas, Virginia
- 3% Nebraska, Kansas, Utah

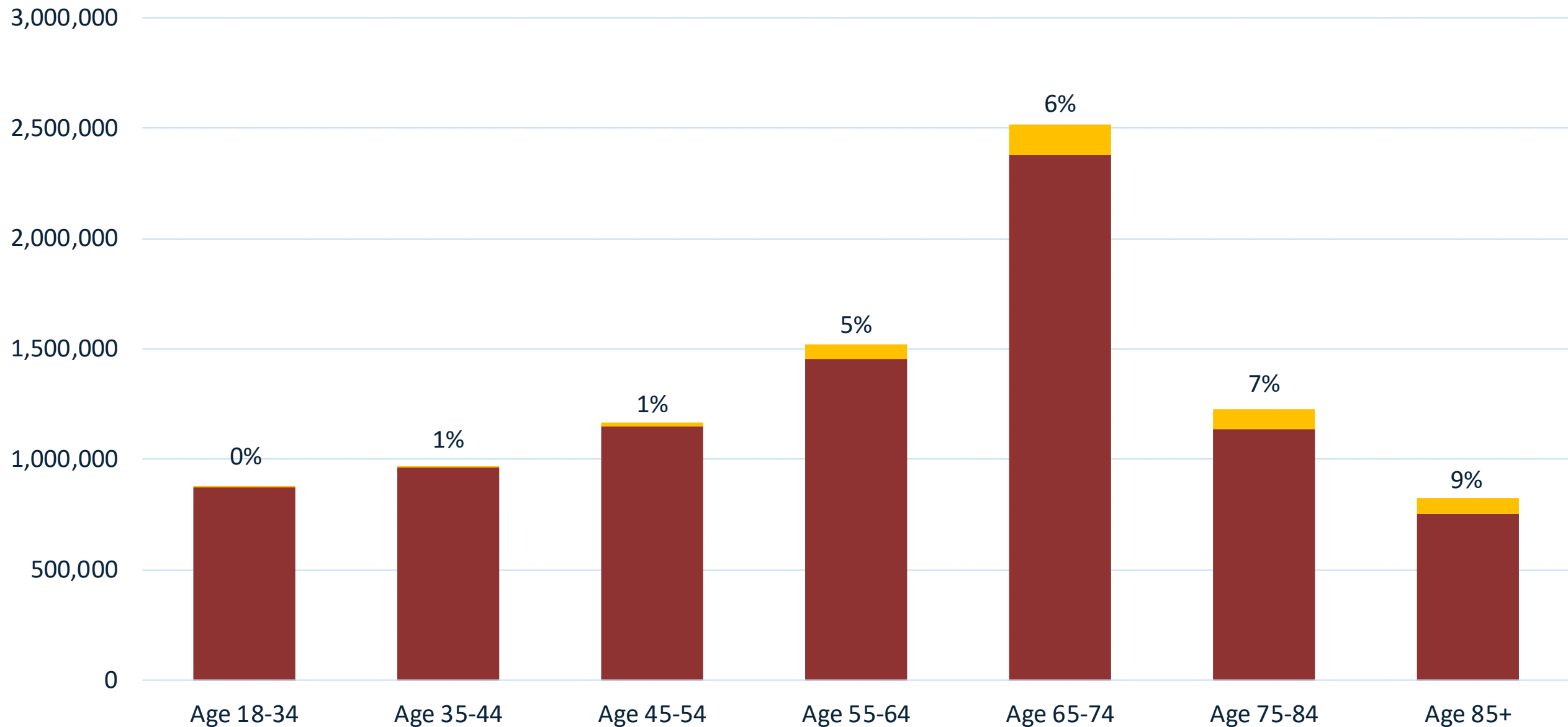
# FY18 VHA enrollees, by age and sex



# FY18 VHA enrollees in Medicaid, by age and sex



# FY18 VHA Enrollees Dual Eligibles, by age



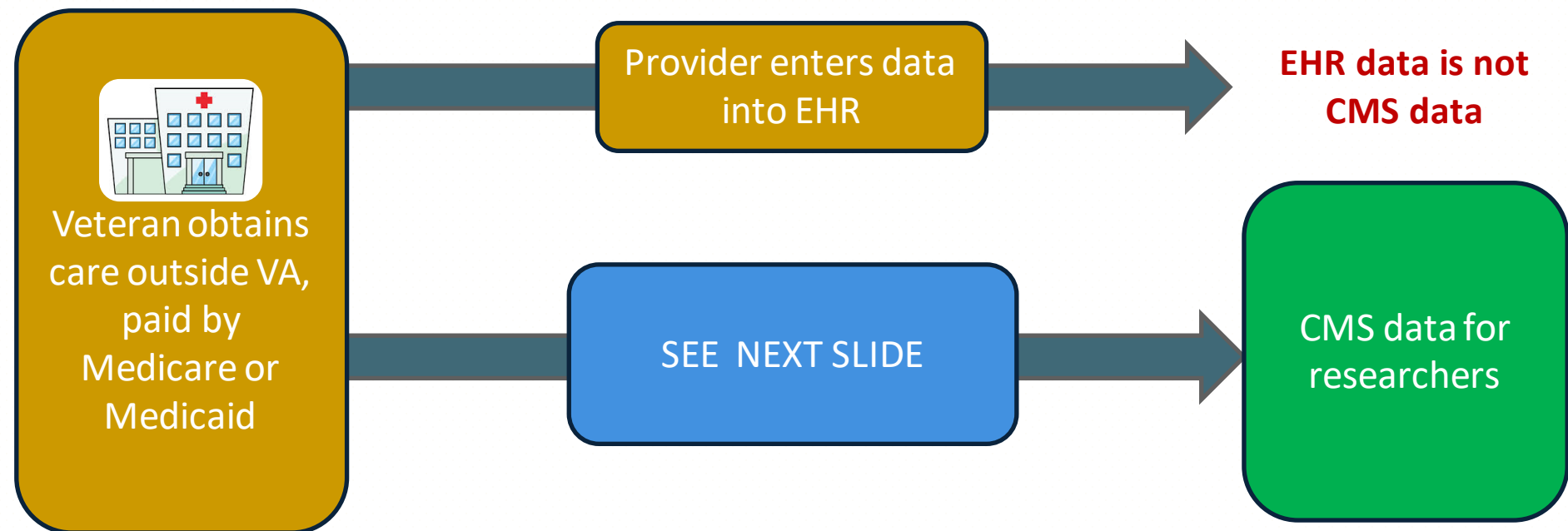
# Session roadmap

- Medicare & Medicaid Enrollment
- **Medicare & Medicaid Utilization**
- Other CMS Data
- USRDS Data
- Which files should I use?
- Data AAA (Access, Availability, & Assistance)

### VA Data Flow

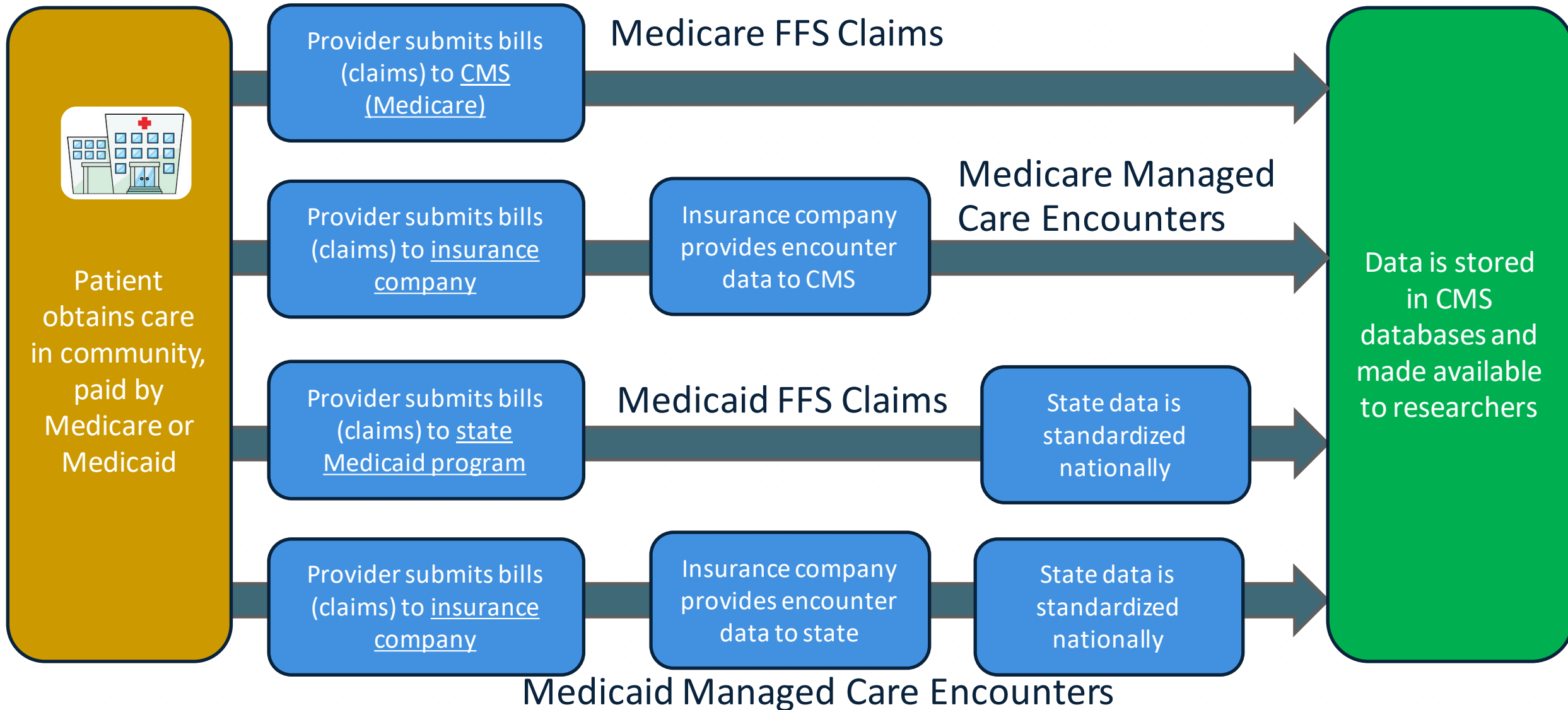


### CMS Data Flow



## Source of VA, Medicare, & Medicare Data

# Sources of Medicare & Medicaid Data



# Utilization Data

## Medicare

- FFS claims in separate files from managed care encounters
- Claims
  - Inpatient, SNF, Home Health, Outpatient, Carrier, DME, Hospice
- Encounters
  - Inpatient, SNF, Home Health, Outpatient, Carrier, DME
- Part D Events (started in 2006)

## Medicaid

- FFS claims in same files as managed care encounters
- Claims + Encounters:
  - Inpatient
  - Long Term Care
  - Prescription Drug
  - Other Services (i.e. everything else)

SNF=Skilled Nursing Facility; DME=Durable Medical Equipment

# Medicare Utilization

## Strengths

- National enrollment criteria & benefits
- Most timely data (FFS)
- Very large number enrolled
  - Half of Veterans are enrolled
  - Almost everyone 65+
- Captures most care for 65+

## Limitations

- No clinical data

# Considerations regarding Medicaid Data

- “Varies by state” - 52 different programs
  - Eligibility
  - Benefits
  - Managed care options/requirements
  - Waivers
- Transition to data new system
  - Between 2013-2015 states transitioned to new system
  - Old data = MAX
  - New data = TAF
  - Structure of the data & variables are different
  - 2014-15 have data in both formats

# Medicaid Data Quality



# DQATLAS

Explore the quality and usability  
of Medicaid and CHIP data in  
T-MSIS Analytic Files (TAF)

## HOW TO USE DQ ATLAS

DQ (Data Quality) Atlas includes data quality information that supports insightful, methodologically sound analyses using the T-MSIS Analytic Files (TAF) Research Identifiable Files (RIF). Select one of the below pathways to explore key Medicaid and Children's Health Insurance Program (CHIP) topics such as enrollment, claims, expenditures, and service use.

### EXPLORE BY TOPIC

View data quality assessments on topics such as enrollment, claims, expenditures, and service use.

### EXPLORE BY STATE

View data quality assessments for a selected state for all available topics.

### RESOURCES

Learn more about DQ Atlas and how it can support your work.

▼  
Feedback

<https://www.medicaid.gov/dq-atlas/welcome>

## RX FILE DQ TOPICS

## &lt; National Drug Code - RX &gt;

VIEW AS

Map | Table

DATA YEAR

2020

DATA VERSION

Preliminary ▶

ALL STATES

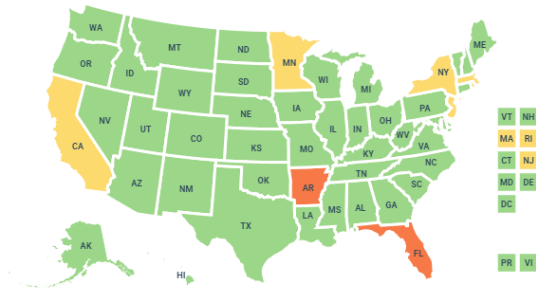
## DQ Assessments

VIEW BACKGROUND AND METHODS

DATA (CSV)

DQ TOPICS SNAPSHOT

CLICK ANY STATE TO SEE FURTHER INFORMATION



## ABOUT DQ ASSESSMENTS

Topic: **National Drug Code - RX**Source data: **TAF**

## ASSESSMENT BASIS

Percentage of pharmacy (RX) line records with

## NATIONAL SUMMARY FOR THIS TOPIC

DQ Assessment	States with specified DQ Assessment
Low concern	45
Medium concern	6
High concern	2
Unusable	0
Unclassified	0

Feedback

## LT FILE DQ TOPICS

## &lt; Admission Date - LT &gt;

VIEW AS

Map | Table

DATA YEAR

2020

DATA VERSION

Preliminary ▶

ALL STATES

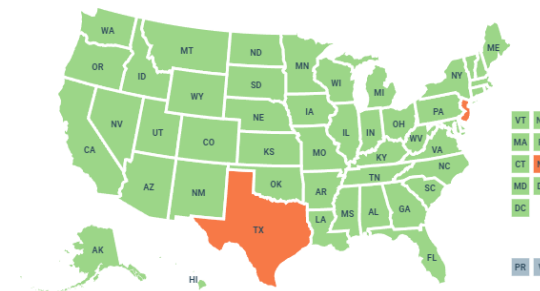
## DQ Assessments

VIEW BACKGROUND AND METHODS

DATA (CSV)

DQ TOPICS SNAPSHOT

CLICK ANY STATE TO SEE FURTHER INFORMATION



## ABOUT DQ ASSESSMENTS

Topic: **Admission Date - LT**Source data: **TAF**

## ASSESSMENT BASIS

Percentage of long-term care (LT) records with

## NATIONAL SUMMARY FOR THIS TOPIC

DQ Assessment	States with specified DQ Assessment
Low concern	49
Medium concern	0
High concern	2
Unusable	0
Unclassified	2

Feedback

# Medicaid Utilization

## Strengths

Especially important when studying specific groups

- Disabled, mental illness
- Elderly, institutionalized
- Females

## Limitations

- No clinical data
- Variation by state (eligibility, benefits, data quality)
- Compared to Medicare
  - Relatively small number of Veterans enrolled
  - Continuous coverage less common
  - Data is delayed

# Resources

About Medicare:  
[www.cms.gov/Medicare/Medicare](http://www.cms.gov/Medicare/Medicare)

Medicare beneficiaries:  
[www.Medicare.gov](http://www.Medicare.gov)

About Medicaid:  
[www.Medicaid.gov](http://www.Medicaid.gov)

Medicaid beneficiaries:  
“Varies by state”

# Session roadmap

- Medicare & Medicaid Enrollment
- Medicare & Medicaid Utilization
- **Other CMS Data**
- USRDS Data
- Which files should I use?
- Data AAA (Access, Availability, & Assistance)

# Ensuring accessible and high-quality healthcare

## Plan Quality Measures

- Medicare Advantage HEDIS

## Beneficiary Surveys

- MCBS

## Quality Initiatives

- Patient Assessment Instruments

Medicare  
Advantage  
HEDIS

Healthcare  
Effectiveness  
Data and  
Information Set

- Tool used by health plans to measure quality of care
- One record per person, per plan, per calendar year
  - Can be used to summarize amount and types of utilization
- Examples
  - Received eye exam? Knee replacement?
  - Number of hospitalizations, length of stay
  - Received certain medications

# Medicare Advantage HEDIS

## Strengths

- More timely than Medicare encounter data when studying utilization for managed care enrollees
- Good for high level/summary information

## Limitations

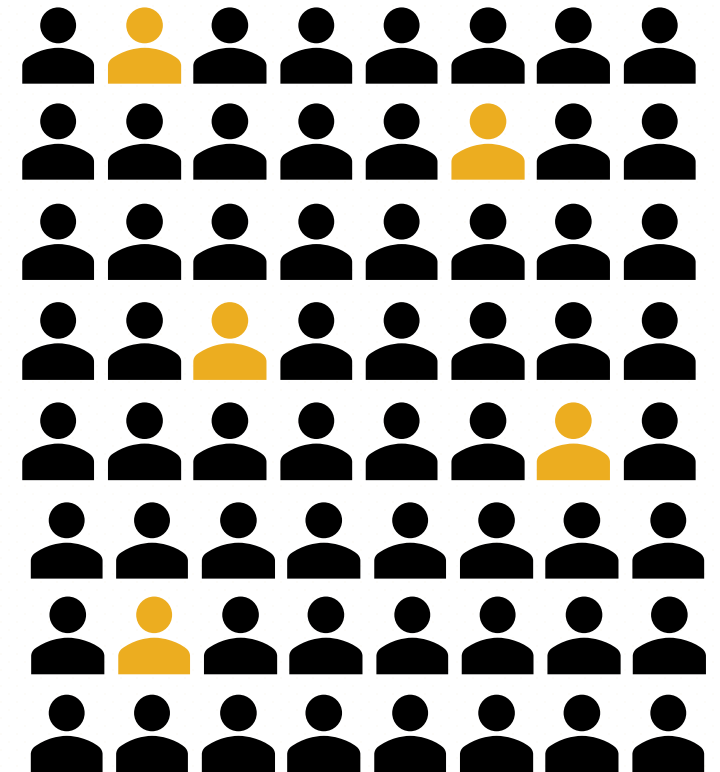
- No dates
- No diagnosis or procedure codes
- No provider information

# Medicare Current Beneficiary Survey (MCBS)

- Annual survey since 1991
- In person interviews
- Includes
  - Satisfaction with care and usual source of care
  - Social determinants of health
  - Outcomes
  - Health insurance coverage (beyond Medicare)
  - Total healthcare events and expenditures from all payers

# MCBS Sample

- Nationally representative of Medicare enrollees
  - Over-samples subgroups of interest
- Some questionnaires specific to individuals living in a facility
- Rotating panel design
- Beneficiaries participate for 4 years
- N=15k in 2018
  - 11% can be matched to VHA cohort



# Types of MCBS Data

## Survey File

- Demographics, household, insurance, health status & functioning
- Usual source of care, access & satisfaction with care
- Summary of FFS claims
- Similar to “Access to Care” module <=2013

## Cost Supplement

- All patient reported healthcare events and amount paid by all payers
- Includes Medicare FFS claims
- Similar to “Cost and Use” module <=2013

# MCBS Questions of Interest in VA Research

- Military Service
  - Did you ever serve in the Armed Forces of the United States?
  - Which time period(s) did you serve in the Armed Forces?
  - Were you even an active member of a National Guard or military reserve unit of the United States?
- VHA vs community as source of care
  - Usual source of care
  - Satisfaction with care
  - Access to care

# MCBS

## Strengths

- Information that can't be captured elsewhere
- All healthcare captured
- Compare Veterans inside and outside of VHA

## Limitations

- Not ideal for Veteran-only studies

# Resources

## Medicare Current Beneficiary Survey (MCBS)



If you have been contacted to participate in the Medicare Current Beneficiary Survey (MCBS) and would like to verify your selection in this study, please contact NORC toll free at 1-844-777-2151. If an interviewer has contacted you and you would like to verify them, please visit our respondent care website at [NORC Respondent Care Center](https://mcbs.norc.org/), call 1 (866) 856 - 6672 (NORC), or email [surveyhelp@norc.org](mailto:surveyhelp@norc.org). You can also visit our respondent website at <https://mcbs.norc.org/>.

This survey is authorized by section 1875 (42 USC 139511) of the Social Security Act and is conducted by NORC for the U.S. Department of Health and Human Services. The OMB Number for this survey is 0938-0568 and expires 02/29/2024.

The Medicare Current Beneficiary Survey (MCBS) is a continuous, multipurpose survey of a nationally representative sample of the Medicare population, conducted by the Office of Enterprise Data and Analytics (OEDA) of the Centers for Medicare & Medicaid Services (CMS) through a contract with NORC at the University of Chicago. The central goals of the MCBS are to determine expenditures and sources of payment for all services used by Medicare beneficiaries, including co-payments, deductibles, and non-covered services; to ascertain all types of health insurance coverage and relate coverage to sources of payment; and to trace outcomes over time, such as changes in health status and spending down to Medicaid eligibility and the impacts of Medicare program changes on satisfaction with care and usual source of care. The MCBS provides important information on health outcomes and social determinants of health not available in the administrative program data.

For researchers

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS>



## WELCOME TO THE MCBS!

The Medicare Current Beneficiary Survey is the leading source of information on the Medicare program. The purpose of this survey is to better understand the experiences of people who are covered by Medicare to help improve the Medicare program. This survey has been continuously conducted since 1991, and more than 1.2 million interviews have been conducted since the beginning.

Para Español, haga clic aquí.



WHAT IS  
THE MCBS?



WHAT CAN I  
EXPECT?

For respondents

<https://mcbs.norc.org/>

## Assessment Data

aka Patient  
Assessment  
Instruments

- Standardized forms
- Assesses health and functional status of patient
- Information collected on patients at various points of care (admission, quarterly, at discharge, etc.)
- Purposes
  - Tracking/planning patient care
  - Measuring quality of care at the facility/provider
  - May determine provider payment (dependent on patient's health status and needs)

# Types of Questions on Assessment Instruments

- Functional Abilities
  - Activities of Daily Living (ADLs)
  - Mobility
  - Eating & elimination
  - Hearing, Speech, Vision
- Cognitive Patterns, Mood, Behavior
- Health conditions & diagnoses
- Treatments, therapies, planned care

Type of Provider	Assessment Form/File	Which patients?	N in 2018 (% Vets)
Inpatient Rehab Facility	Inpatient Rehabilitation Facility - Patient Assessment Instrument (IRF-PAI)	Required for all stays paid by Medicare FFS & MA	421,549 (13%)
Home Health Agencies	Outcome and Assessment Information Set (OASIS)	Required for all care paid by Medicare FFS, MA, or Medicaid	6,013,527 (9%)
Nursing Facilities	Resident Assessment Instrument (RAI) Minimum Data Set (MDS)	Required for all stays in CMS certified nursing facilities, regardless of payer	3,982,379 (12%)

# Which facilities are included in MDS data?

## CMS MDS data

- Community nursing homes
  - Paid by Medicare, Medicaid, private insurance, self pay, VA, etc.
- Some State Veterans Homes
  - If certified by CMS

## VA MDS data

- VA Community Living Centers (CLCs)
- State Veterans Homes
  - Could overlap with CMS MDS data
- **NOT VA paid stays in community nursing homes**

# Assessment Data

## Strengths

- Functional status
- All nursing facility stays, regardless of payer

## Limitations

- Details not needed by all projects

# Resources

<https://www.cms.gov/Medicare/Medicare>

## Quality Initiatives/Patient Assessment Instruments

[Meaningful-Measures-Framework](#)

[Value-Based Programs](#)

[ESRD Quality Incentive Program](#)

[ASC Quality Reporting](#)

[Measures Management System](#)

[Hospice Quality Reporting Program](#)

[Home Health Quality Reporting Program](#)

[Inpatient Rehabilitation Facility Quality Reporting Program](#)

[Long Term Care Hospital Quality Reporting Program](#)

[Nursing Home Quality Initiative](#)

[Skilled Nursing Facility Quality Reporting Program](#)

[Physician Compare Initiative](#)

[Quality Payment Program \(QPP\)](#)

[Quality Measures](#)

[Post-Acute Care Quality Initiatives](#)

Resident \_\_\_\_\_ Identifier \_\_\_\_\_ Date \_\_\_\_\_

**MINIMUM DATA SET (MDS) - Version 3.0**  
**RESIDENT ASSESSMENT AND CARE SCREENING**  
**Nursing Home Comprehensive (NC) Item Set**

**Section A Identification Information**

**A0050. Type of Record**

Enter Code ☐ 1. Add new record → Continue to A0100, Facility Provider Numbers  
 2. Modify existing record → Continue to A0100, Facility Provider Numbers  
 3. Inactivate existing record → Skip to X0150, Type of Provider

**A0100. Facility Provider Numbers**

**A. National Provider Identifier (NPI):** \_\_\_\_\_

**B. CMS Certification Number (CCN):** \_\_\_\_\_

**C. State Provider Number:** \_\_\_\_\_

**A0200. Type of Provider**

Enter Code ☐ **Type of provider**  
 1. Nursing home (SNF/NF)  
 2. Swing Bed

**A0310. Type of Assessment**

Enter Code ☐ **A. Federal OBRA Reason for Assessment**  
 01. Admission assessment (required by day 14)  
 02. Quarterly review assessment  
 03. Annual assessment  
 04. Significant change in status assessment  
 05. Significant correction to prior comprehensive assessment  
 06. Significant correction to prior quarterly assessment  
 99. None of the above

Enter Code ☐ **B. PPS Assessment**  
**PPS Scheduled Assessments for a Medicare Patient**  
 01. 5-day scheduled assessment  
 02. 14-day scheduled assessment  
 03. 30-day scheduled assessment  
 04. 60-day scheduled assessment  
 05. 90-day scheduled assessment  
**PPS Unscheduled Assessments for a Medicare Patient**  
 06. Unscheduled assessment used for PPS (Other than PPS Assessment)  
 07. PPS Assessment  
 99. None of the above

Enter Code ☐ **C. PPS Other Medicare Required Assessment - Other**  
 0. No  
 1. Start of therapy assessment  
 2. End of therapy assessment  
 3. Both Start and End of therapy assessment  
 4. Change of therapy assessment

**Home Health Patient Tracking Sheet**

(M0010) CMS Certification Number: \_\_\_\_\_

(M0014) Branch State: \_\_\_\_\_

(M0016) Branch ID Number: \_\_\_\_\_

(M0018) National Provider Identifier (NPI) for the attending physician: \_\_\_\_\_

(M0020) Patient ID Number: \_\_\_\_\_

(M0030) Start of Care Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 month day

(M0032) Resumption of Care Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 month day

(M0040) Patient Name: \_\_\_\_\_  
 (First) (M I)

(M0050) Patient State of Residence: \_\_\_\_\_

(M0060) Patient ZIP Code: \_\_\_\_\_

(M0063) Medicare Number: \_\_\_\_\_  
 (including suffix)

(M0064) Social Security Number: \_\_\_\_\_

(M0065) Medicaid Number: \_\_\_\_\_

(M0066) Birth Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 month day

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
 CENTER FOR MEDICARE & MEDICAID SERVICES

OMB No. 0938-0842

**INPATIENT REHABILITATION FACILITY - PATIENT ASSESSMENT INSTRUMENT**

**Identification Information**

1. Facility Information  
 A. Facility Name \_\_\_\_\_

2. Patient Medicare Number \_\_\_\_\_

3. Patient Medicaid Number \_\_\_\_\_

4. Patient First Name \_\_\_\_\_

5A. Patient Last Name \_\_\_\_\_

5B. Patient Identification Number \_\_\_\_\_

6. Birth Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
 MM/DD/YYYY

7. Social Security Number \_\_\_\_\_

8. Gender (1 - Male; 2 - Female) \_\_\_\_\_

10. Marital Status  
 (1 - Never Married; 2 - Married; 3 - Widowed;  
 4 - Separated; 5 - Divorced) \_\_\_\_\_

11. Zip Code of Patient's Pre-Hospital Residence \_\_\_\_\_

12. Admission Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
 MM/DD/YYYY

13. Assessment Reference Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
 MM/DD/YYYY

14. Admission Class  
 (1 - Initial Rehab; 2 - Evaluation; 3 - Readmission;  
 4 - Unplanned Discharge; 5 - Continuing Rehabilitation)

15A. Admit From  
 (01 - Home (private home/apt., board/care, assisted living, group home, transitional living, other residential care arrangements); 02 - Short-term General Hospital; 03 - Skilled Nursing Facility (SNF); 04 - Intermediate care; 05 - Home under care of organized home health service organization; 06 - Hospice (home); 07 - Hospice (medical facility); 08 - Swing bed; 09 - Another Inpatient Rehabilitation Facility; 10 - Long-Term Care Hospital (LTCH); 11 - Medicaid Nursing Facility; 12 - Inpatient Psychiatric Facility; 13 - Critical Access Hospital (CAH); 99 - Not Listed)

16A. Pre-hospital Living Setting  
 Use codes from 15A. Admit From

17. Pre-hospital Living With  
 (Code only if item 16A is 01 - Home. Code using 01 - Alone;  
 02 - Family/Relatives; 03 - Friends; 04 - Attendant; 05 - Other)

**Payer Information**

20. Payment Source  
 (02 - Medicare Fee For Service; 51 - Medicare-Medicare Advantage;  
 99 - Not Listed)  
 A. Primary Source \_\_\_\_\_  
 B. Secondary Source \_\_\_\_\_

**Medical Information**

21. Impairment Group\* \_\_\_\_\_  
 Admission Discharge

Condition requiring admission to rehabilitation; code according to Appendix A.

22. Etiologic Diagnosis \_\_\_\_\_  
 (Use ICD codes to indicate the etiologic problem that led to the condition for which the patient is receiving rehabilitation)  
 A. \_\_\_\_\_ B. \_\_\_\_\_ C. \_\_\_\_\_

23. Date of Onset of Impairment \_\_\_\_/\_\_\_\_/\_\_\_\_  
 MM/DD/YYYY

24. Comorbid Conditions  
 Use ICD codes to enter comorbid medical conditions

A. _____	J. _____	S. _____
B. _____	K. _____	T. _____
C. _____	L. _____	U. _____
D. _____	M. _____	V. _____
E. _____	N. _____	W. _____
F. _____	O. _____	X. _____
G. _____	P. _____	Y. _____
H. _____	Q. _____	
I. _____	R. _____	

24A. Are there any arthritis conditions recorded in items #21, #22, or #24 that meet all of the regulatory requirements for IRF classification (in 42 CFR 412.29(b)(2)(x), (xi), and (xii))?  
 (0 - No; 1 - Yes)

Height and Weight  
 (While measuring if the number is X.1-X.4 round down, X.5 or greater round up)

25A. Height on admission (in inches) \_\_\_\_\_

26A. Weight on admission (in pounds) \_\_\_\_\_  
 Measure weight consistently, according to standard facility practice (e.g., in a.m. after voiding, with shoes off, etc.)

# Public Use Files

Available on SAS Grid  
libname CMS\_PBLC

- Providers of Services file
  - Facilities/Institutional providers
- UPIN (until 2007)
  - Individuals
- National Provider Identifier (NPI)

[www.virec.research.va.gov/VACMS/Provider/Data.htm](http://www.virec.research.va.gov/VACMS/Provider/Data.htm)

Downloadable from CMS

- [data.cms.gov](http://data.cms.gov)
- Medicare Part D Prescription Drug Plan Formulary, Pharmacy Network, and Pricing Information Files
  - <https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/NonIdentifiableDataFiles/PrescriptionDrugPlanFormularyPharmacyNetworkandPricingInformationFiles>

# Session roadmap

- Medicare & Medicaid Enrollment
- Medicare & Medicaid Utilization
- Other CMS Data
- **USRDS Data**
- Which files should I use?
- Data AAA (Access, Availability, & Assistance)

## Session 5:

# Overview of CMS & USRDS Data from VIREC

February 7, 2022

## Goals of USRDS

- Define and describe the ESRD population
- Study treatments, outcomes, costs of ESRD
- Support investigator-initiated research

Dept of Health and Human  
Services

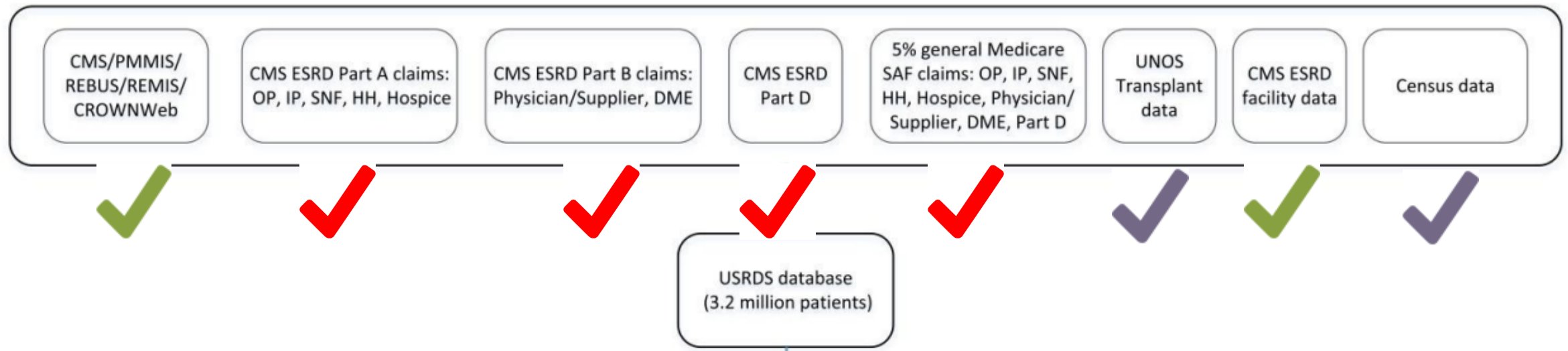
National Institute of Health  
(NIH)

National Institute of  
Diabetes and Digestive and  
Kidney Diseases (NIDDK)

US Renal Data System  
(USRDS)

# Why are CMS data and USRDS often talked about together?

Figure 1. Structure of the USRDS database



## Additional Sources

CMS 2728: Medical Evidence Report

CMS 2746: ESRD Death Notification

USRDS Special Studies

Source: 2020 Researcher's Guide to the USRDS Database; [https://www.usrds.org/media/2482/2020\\_usrds\\_researcher\\_guide.pdf](https://www.usrds.org/media/2482/2020_usrds_researcher_guide.pdf)

# Who is included in the USRDS Database?

- All ESRD patients, not just Medicare enrollees
  - Medical Evidence Report (CMS Form 2728) was completed by a physician
  - Chronic dialysis
  - Kidney transplant
- Does not include patients with acute kidney failure
- Cumulative since mid 1960s
- 3.2 million patients (all years)
- 132k new patients in CY2018
  - 10% in VHA cohort

# USRDS Curated Files

## Core Files

- Most commonly used; needed to use other files
- Patient
- Medical Evidence
- Treatment history
- Payer history
- Transplant & waitlist

## Transplant Files

- Detailed transplant data from CMS and United Network for Organ Sharing (UNOS)
- Donor information
- Transplant Follow-up

## Hospital Files

- Medicare Inpatient claims
- Doesn't include costs

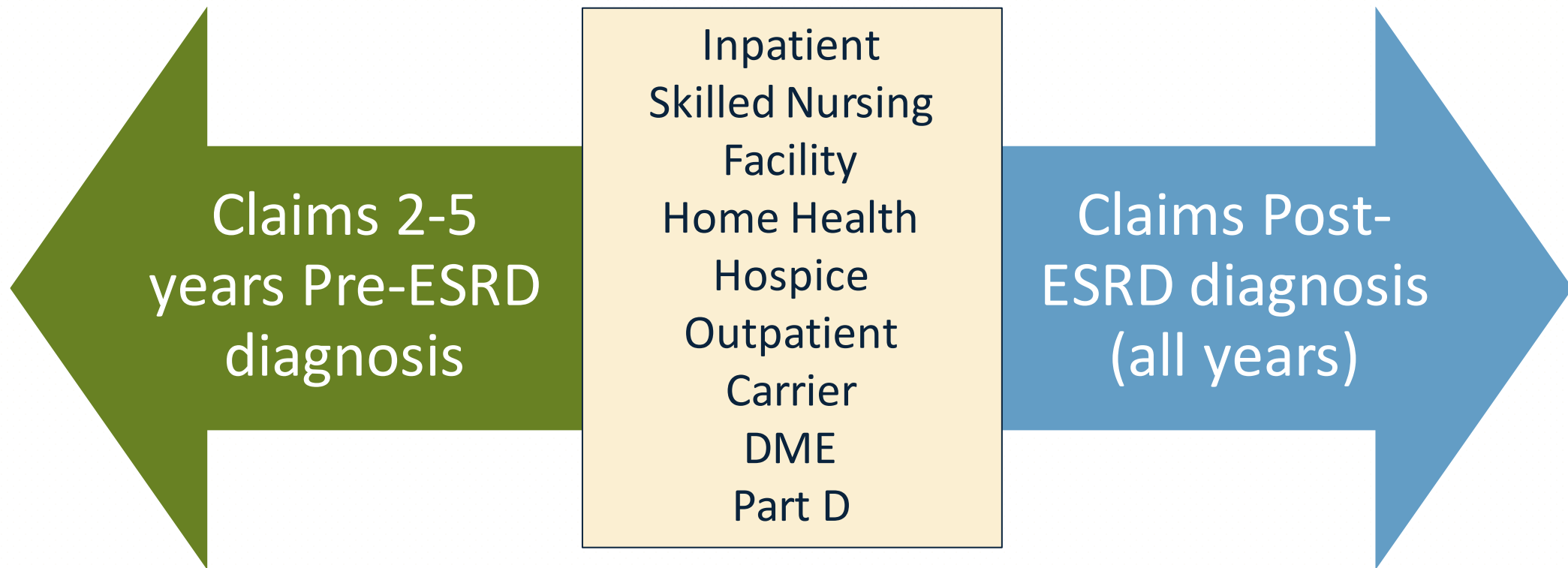
## USRDS Special Studies

- Clinical Performance Measures (CPM) Survey
- Comprehensive Dialysis Survey (CDS)

## CROWNWeb Clinical

- Consolidated Renal Operations in a Web Enabled Network
- Clinical data collected from Medicare-certified dialysis facilities

# Medicare Claims from USRDS



# USRDS Data

## Strengths

- Clinical info for patients treated outside VHA (including Medicare)
- Easy to find Medicare paid treatments
- ESRD treatments paid by private insurance

## Limitations

- Only contains complete healthcare data for Medicare FFS enrollees
- Some data overlaps with Medicare data

# Resources

[www.usrds.org](http://www.usrds.org)

**USRDS**

[Home](#) [About](#) [News](#) [FAQs](#) [Contact Us](#) [Sitemap](#) [🔍](#)

[Annual Data Report](#) [Previous ADRs](#) [ESRD Quarterly Update](#) [For Researchers](#) [Data Query Tools](#) [Publications](#)

## Researcher's Guide

### Researcher's Guide

The 2020 Researcher's Guide to the USRDS Database is currently available. The downloadable PDF files containing the chapters are in Adobe Acrobat™. You will need the Acrobat Reader to view the documents.

[2020 Researcher's Guide to the USRDS Database](#)

[Appendix A: USRDS Products and Services](#)

[Appendix B: Data File Descriptions](#)

#### For Researchers

[Simple Data Requests](#)

[Standard Analysis Files](#)

[Merged Data Requests](#)

[Researcher's Guide](#)

[Data Query Tools](#)

## 2021 Annual Data Report

### Table of Contents

- Introduction
- Navigating the 2021 ADR
- Chronic Kidney Disease
  - Ch 1: CKD in the General Population
  - Ch 2: Identification and Care of Patients with CKD
  - Ch 3: Morbidity and Mortality in Patients with CKD
  - Ch 4: Acute Kidney Injury
  - Ch 5: CKD Among Children and Adolescents
  - Ch 6: Healthcare Expenditures for Persons with CKD
  - Ch 7: Prescription Drug Coverage in Patients with CKD
  - Ch 8: Transition of Care in Chronic Kidney Disease
  - Analytical Methods
- End Stage Renal Disease
  - Ch 1: Incidence, Prevalence, Patient Characteristics, and Treatment Modalities
  - Ch 2: Home Dialysis
  - Ch 3: Clinical Indicators and Preventive Care
  - Ch 4: Vascular Access
  - Ch 5: Hospitalization
  - Ch 6: Mortality
  - Ch 7: Transplantation
  - Ch 8: ESRD among Children and Adolescents
  - Ch 9: Healthcare Expenditures for Persons with ESRD
  - Ch 10: Prescription Drug Coverage in Patients with ESRD
  - Ch 11: International Comparisons
  - Ch 12: Patient Experience: End-of-life Care for Patients with ESRD
  - Analytical Methods
- Supplements: COVID-19; Racial and Ethnic Disparities
  - Ch 13: COVID-19
  - Ch 14: Racial and Ethnic Disparities

# Session roadmap

- Medicare & Medicaid Enrollment
- Medicare & Medicaid Utilization
- Other CMS Data
- USRDS Data
- Which files should I use?
- Data AAA (Access, Availability & Assistance)

# Which files should I use?

## Nursing Facilities

CMS MDS

Medicare SNF

Medicaid LTC

## Prescription drugs

Medicare  
Part D

Medicaid RX

## Patients with ESRD

USRDS

Medicare

# Considerations when studying care in nursing facilities

## CMS MDS

- All payers
- Will be overlap with other data sources
  - State veteran homes (overlap with VA MDS)
- Medicare & Medicaid

## Medicare SNF

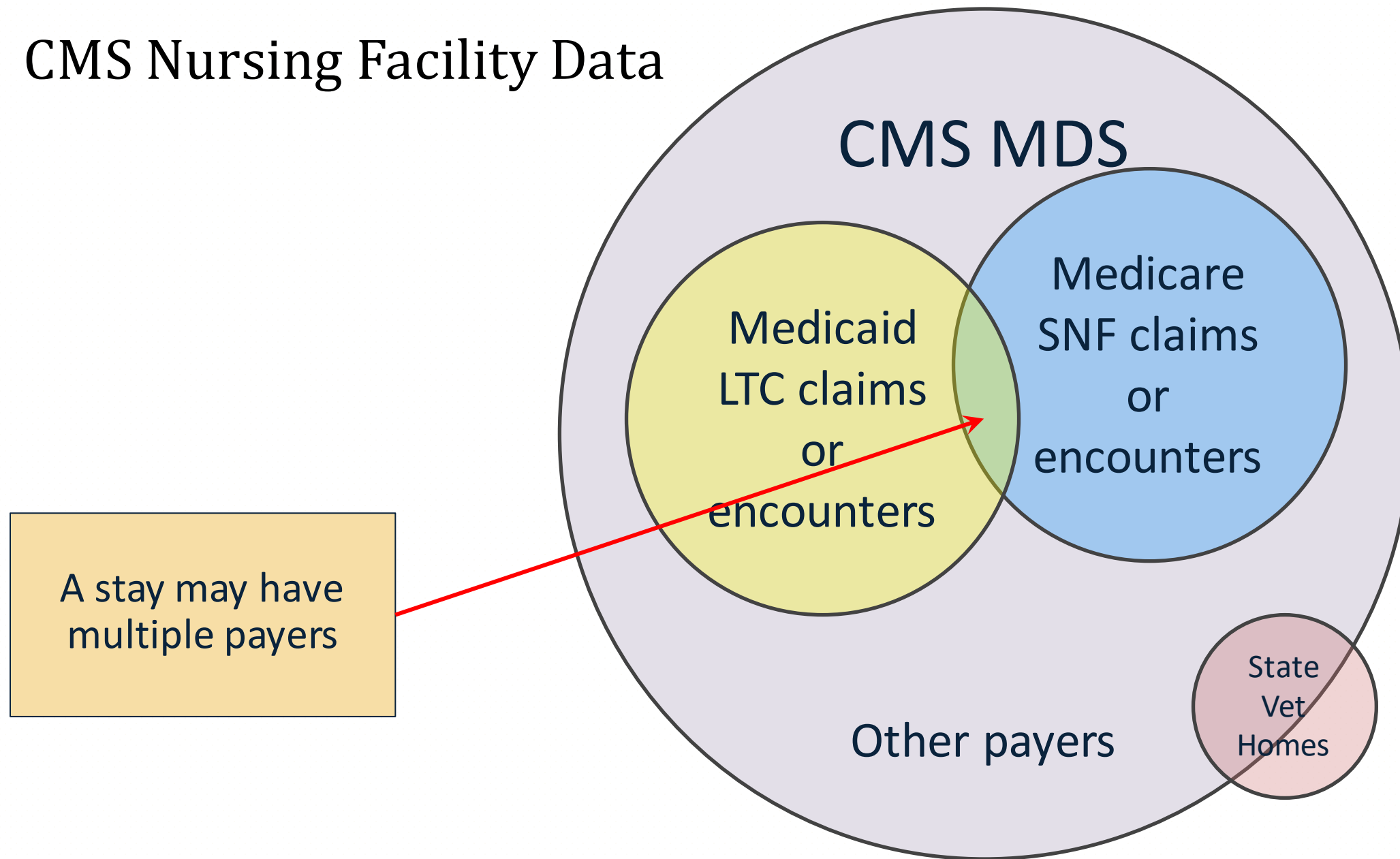
- Medicare doesn't cover all stays in nursing facilities
  - Skilled Nursing only
  - No custodial care
  - Max 100 days
  - Requires qualifying hospitalization

## Medicaid LTC

- Only low-income patients

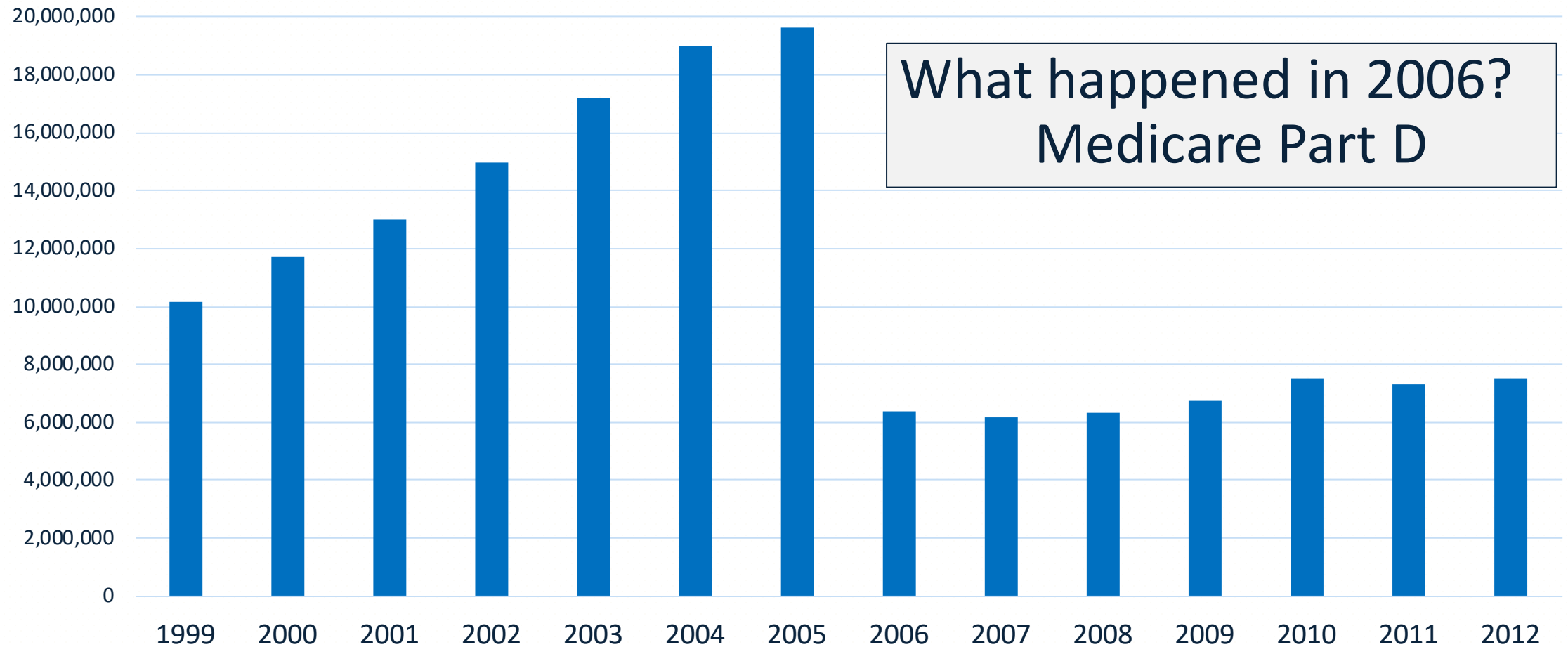
Portions of a stay may be paid first by Medicare, then Medicaid

# CMS Nursing Facility Data



# CMS Prescription Drug Data

## Medicaid Prescription Drug Records for VHA Cohort



# Considerations when studying prescription drugs

## Dual Eligibles

- Medicaid <2006
- Medicare 2006-forward

## VHA-Medicare Enrollees

- Only half of Medicare enrolled Veterans have Part D Coverage

## Prescriber

- Drugs prescribed by VA physician are filled in VA
- Drugs prescribed by non-VA physician are filled outside VA

# Considerations when studying patients with ESRD

## USRDS specific files

- Gold standard for ESRD diagnosis
- Only source of detailed & clinical data

## Medicare claims from USRDS

- Limited data prior to ESRD diagnosis
- Delayed 2+ years behind Medicare data from CMS
- Available for non-veterans

## Medicare claims from CMS

- Availability not tied to ESRD diagnosis
- Timely

Not recommended to use Medicare claims from both sources

# Session roadmap

- Medicare & Medicaid Enrollment
- Medicare & Medicaid Utilization
- Other CMS Data
- USRDS Data
- Which files should I use? (Examples)
- **Data AAA (Access, Availability, & Assistance)**

# Data Access



- The data steward for CMS and USRDS data used for VA research
- Distributing data from to VA approved projects since 2003
- Providing assistance to VA research projects using CMS data
- No cost to VA researchers

# Requesting CMS data

- Pre-Request Consultation
- Request Process and Forms
- Data Descriptions and Documentation

[virec.vacmsdata@va.gov](mailto:virec.vacmsdata@va.gov)

**VA INFORMATION RESOURCE CENTER (VIREC)**

**VA/CMS Data Standard Request Packet**

**Overview**

This page outlines the documents and approvals required for the [standard request](#) process for both initial and subsequent requests for VA/CMS data.

Projects that...	Use
Are requesting VA/CMS data for the first time	<a href="#">Initial Request Packet</a>
Have already submitted an initial request packet and are requesting additional data	<a href="#">Subsequent Request Packet</a>

**Initial Request Packet**

The Initial Request Packet is required for projects requesting access to VA/CMS data for the first time. When projects are engaged in research at multiple sites, each project site that will access the VA/CMS data is required to submit the Initial Request Packet. All projects must submit the following:

1. [Project Information and Authorization Form](#) signed by the Principal Investigator (PI) and approved by the PI's supervisor and the local facility Associate Chief of Staff for Research (ACOS-R).
2. [Data Security Compliance Form](#) signed by the PI and the Information Security Officer (ISO) at the VHA facility where research is being conducted, and if different, the ISO at the VHA facility where the VA/CMS data will be stored. If the data will be stored on VINCI, the ISO's signature is not required.
3. [VA/CMS Rules of Behavior \(ROB\) Agreement](#) signed by the PI and each project staff member who will have access to the VA/CMS data
4. Data Description Form(s) pre-reviewed by VIREC then signed by the PI and approved by the local Privacy Officer (PO) or central IRB Privacy Officer. Projects may submit one or more of the following data description forms for their project:
  - [VA/CMS Data for Veterans Only](#)
  - [VA/CMS Data for Veterans and Non-Veterans](#)
  - [VA/CMS Non-Repository Data](#)

**General Resources**

- VA/CMS Repository Data
- Non-Repository Data
- Provider Data
- Cohorts & Identifiers
- Requests
- Current Data Users

[vawww.virec.research.va.gov/Index-VACMS.htm](http://vawww.virec.research.va.gov/Index-VACMS.htm)  
(VA intranet only)



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

# Data Availability in VHA

# Current Availability

The screenshot shows the VIREC INTRANET homepage. At the top is the VIREC logo and the word "INTRANET". Below this is a search bar and a navigation menu on the left. The main content area is titled "Data Available from VIREC" and includes an "Overview" section, a "Medicare Datasets" section, and a table of dataset names with their corresponding VHA Cohort, 5% Sample, and 100% availability. A sidebar on the right lists "On this page..." and "General Resources".

**VA INFORMATION RESOURCE CENTER (VIREC)**

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

**Data Available from VIREC**

**Overview**

VIREC is the data steward for all Centers for Medicare and Medicaid Services (CMS) and United States Renal Data System (USRDS) data for VA research use. This page lists dataset names, calendar years, and cohorts currently available. Files are available by calendar year unless otherwise indicated. Contact VIREC if your project requires data that is not listed below.

Visit the "[Cohorts & Identifiers](#)" page for basic descriptions of each cohort and associated unique identifiers for each population.

**Medicare Datasets**

Visit the "[Medicare Data](#)" page for file descriptions.

Dataset Names	VHA Cohort	5% Sample	100%
Denominator	1997-2008	N/A	1999-2008
Beneficiary Summary	2009-2010	2001-2010	2009-2010
Master Beneficiary Summary File (MBSF): Base	2011-2019	2011-2019	2011-2019
Beneficiary Annual Summary File (BASf)	1999-2010	2001-2010	1999-2010
Master Beneficiary Summary File (MBSF): Cost and Use	2011-2019	2011-2019	2011-2019
Master Beneficiary Summary File (MBSF): Chronic Conditions			
Master Beneficiary Summary File (MBSF): Other Chronic or Disabling Conditions			
Shared Savings Program (SSP) Accountable Care Organization (ACO) Beneficiary Level File	2013-2019	2013-2019	2013-2019
SSP ACO Provider Level File*			
Vital Status	Cumulative - Feb 2021	N/A	N/A
Group Health Organization			
Enrollment & Entitlement History			
Incarceration History			
Primary Payer	1997-2019		1999-2019
MedPAR			
Inpatient (claims)			

**On this page...**

- Overview
- Medicare Datasets
- Quarterly/Preliminary Medicare Data
- Medicare data for Veterans with COVID-19
- Medicaid Datasets
- VA/CMS Match Indicator Files
- Healthcare Effectiveness Data & Information Set (HEDIS)
- Patient Assessment Datasets
- Medicare Current Beneficiary Survey (MCBS) Datasets
- United States Renal Data System (USRDS)

**General Resources**

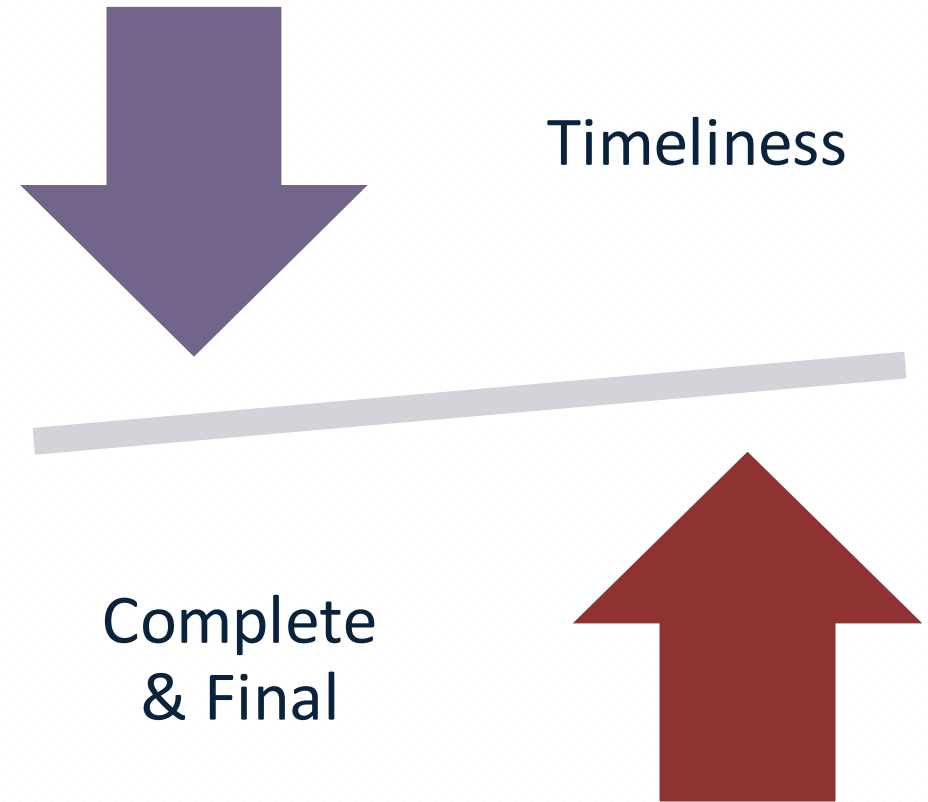
- Learn about VA/CMS Data
- Non-Repository Data
- Provider Data
- Cohorts & Identifiers
- Requests
- Current Data Users

- Types of data
- Files
- Cohorts
- Years

<https://vaww.virec.research.va.gov/VACMS/Intro/Data-Available.htm> (VA intranet only)

# Availability

- Preliminary vs “Final” versions of data
- Most timely data is not the most complete/final



# Approximate Lags in Data Availability

## 2+ year delay

Medicaid (final)

Medicare encounters

USRDS

MCBS

## 1-2 year delay

Medicaid (preliminary)

Medicare claims (final)

Assessment data (final)

HEDIS

## <1 year delay

Medicare claims  
(preliminary)

Assessment data  
(preliminary)

# Cohorts

## VHA cohort

- Most files available
- Scrambled SSN

## 5% sample

- Medicare data only
- Based on last 2 digits of SSN

## 100%

- All people for whom data are available
- Enrollment, summary, and other small files (MCBS, USRDS, Assessment)

- Non-SSN based identifier
  - Differs by dataset
- Members of VHA cohort can be identified
- Data availability may differ than what is available for VHA cohort

# Assistance

To understand the data, you must understand the source

**CMS.gov**

Centers for Medicare & Medicaid Services

Medicare

Medicaid/CHIP

Medicare-Medicaid  
Coordination

Private  
Insurance

Innovation  
Center

Regulations &  
Guidance

Research, Statistics,  
Data & Systems

Outreach &  
Education





- CMS contractor based at the University of Minnesota
- Provides free assistance and training to researchers using CMS data
  - Help desk
  - Knowledge base
  - Webinars
- [www.resdac.org](http://www.resdac.org)

## Chronic Conditions Data Warehouse

*Your source for national CMS Medicare and Medicaid research data*

- Source of most CMS data that VA receives
- Documentation
  - Data dictionaries
  - Summary tables
  - User guides & technical guides
  - White papers & presentations
- [www.ccwdata.org](http://www.ccwdata.org)

# Cyberseminars

- CMS Data Mini-Series
  - Using Medicare Data to Study COVID-19 (10/12/21)
  - Measuring Veterans' Medicare Health Services (1/11/22)
  - Medicare Data in the OMOP Common Data Model (4/12/22)
  - Medicaid Data in VA research (7/12/22)

<https://www.hsrd.research.va.gov/cyberseminars/>

## HSRData Listserv

- Community knowledge sharing
- ~1,400 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



[virec@va.gov](mailto:virec@va.gov)



# Questions about Using VA Data?

THANK YOU!  
Questions?



# CONTACT INFORMATION

**Kristin de Groot, MPH**

Project Director, VA/CMS Data for Research Project

kristin.degroot@va.gov





## DATABASE & METHODS CYBERSEMINAR SERIES

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Next session:

Monday, March 7, 2022 at 1 pm Eastern

Ascertaining Veterans' Vital Status: Data Sources for  
Mortality Ascertainment and Cause of Death



Database & Methods  
**BONUS SLIDES**

# Resources for *VA Data Users*

Quick Guide: Resources for Using VA Data

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

VA Information Resource Center (VIREC)

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

VIREC Cyberseminars

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

VHA Data Portal

<https://vaww.vhadataportal.med.va.gov/Home.aspx> (VA Intranet)

VA Informatics and Computing  
Infrastructure (VINCI)

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

Health Economics Resource Center (HERC)

<https://vaww.herc.research.va.gov> (VA Intranet)

Corporate Data Warehouse (CDW)

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

# Electronic Health Record Modernization *Resources for VA Data Users*

“EHRM & Research” page on the Research Resource Guide SharePoint

<https://dvagov.sharepoint.com/sites/VHAPugResearch/RRG/Pages/EHRM-Research.aspx>

“EHRM and Implications for Data Users” page on the VIREC website

<https://vaww.virec.research.va.gov/EHRM/Overview-and-Implications.htm>

Data Management and Migration Knowledgebase” on the Data Migration, Management, and Syndication SharePoint

<https://vaww.cdw.va.gov/sites/EHRMDataIntegration/DIRAKnowledgeShare/Pages/DIRAKnowledgeShareHome.aspx>

*Syndicated Data Bits* - Weekly Webinars

<https://tinyurl.com/y3wgxzu5>

Office of Electronic Health Record Modernization (OEHRM) Intranet site

<https://vaww.ehrm.va.gov/>