

Community Care and Access Strategies Red Team Executive Roundtable

January 9-10, 2024

CONFIDENTIAL AND PROPRIETARY. Any use of this material without specific permission of the owner is strictly prohibited. The information included in this report will not contain, nor are they for the purpose of constituting, policy advice. We emphasize that statements of expectation, forecasts and projections relate to future events and are based on assumptions that may not remain valid for the whole of the relevant period. Consequently, they cannot be relied upon, and we express no opinion as to how closely the actual results achieved will correspond to any statements of expectation, forecasts or projections. We make no representation or warranty of any kind, express or implied, regarding the accuracy, adequacy, validity, reliability, availability or completeness of any information in these materials. Under no circumstance shall we have any liability to you for any loss or damage of any kind incurred as a result of the use of these materials or reliance on any information provided in these materials.

VA



**U.S. Department
of Veterans Affairs**

Questions to guide Red Team review

1. **What takeaways** do you have based on community care data and VHA trends?
2. What thoughts do you have on **VHA's current approach** to ensuring Veterans have access to the soonest and best care?
 - a) In what ways do you believe the existing approach will be sustainable? How so?
 - b) Is there anything missing if viewed from the perspective of different stakeholders?
 - c) What challenges / roadblocks do you envision?
3. Which **strategies** do you expect to have the greatest impact? The quickest impact?
4. What **other ideas** do you have to address these trends?
 - a) What opportunities are within VHA leadership's control?
 - b) What other structural changes could help address these trends longer-term?
5. Based on all of this, what you would encourage **VHA leadership to prioritize** over the next 12 months?
6. What advice do you have for VHA to **scale and sustain initiatives**, leveraging existing infrastructure (e.g., innovation ecosystem)?

Contents

Background context

Current state in access and community care across VHA

VHA access sprints

Other VHA strategies to expand access and address community care spend

VISNs provide oversight, guidance and management of regional systems of care (1,328 health care facilities).

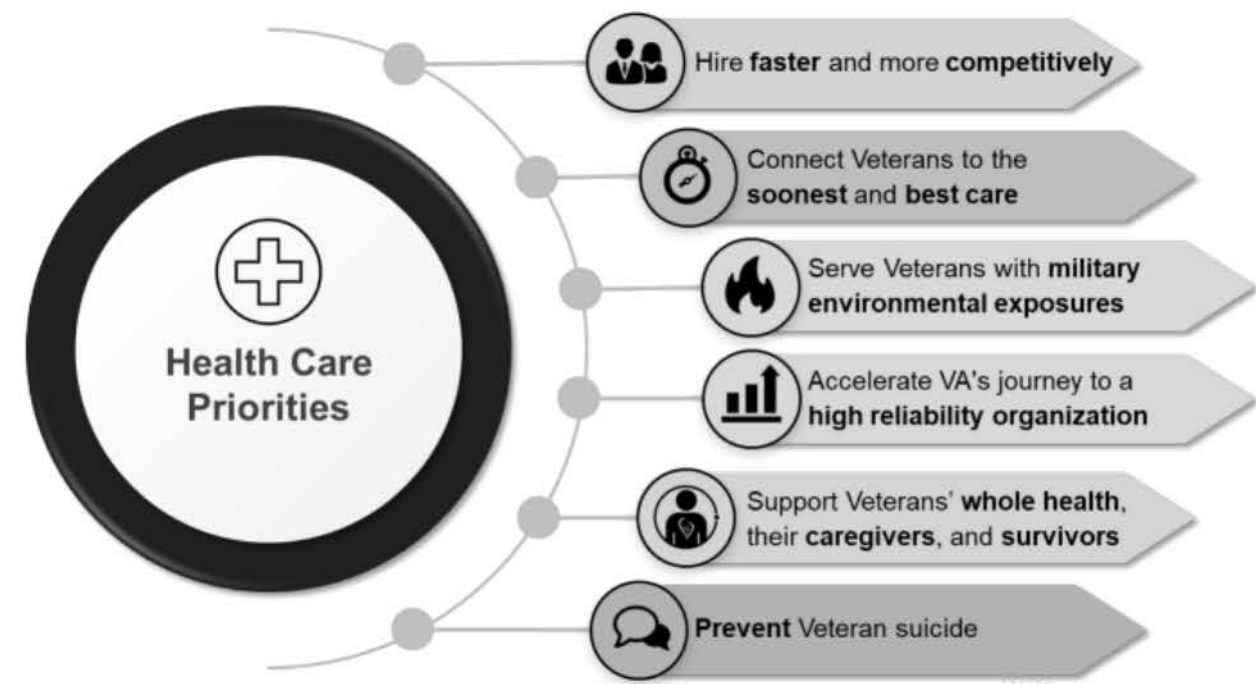
- **1,328** VA Healthcare Facilities including:
 - **173** VA Medical Centers (VAMCs)
 - **1,141** VA Outpatient Sites
 - **316** Vet Centers (Readjustment Counseling)
 - **135** Community Living Centers (Nursing Homes)
 - **116** Residential Rehabilitation Treatment Programs
 - **54** Mobile Clinics – each connected to a medical centers
-
- VHA has **400,000+** employees:
 - **25.2%** of which are Veterans
 - **62.5%** are clinical employees
 - **28,000+** physicians
 - **114,000+** nurses (CRNA, RN, LPN and NA)
 - VHA accounts for **~89%** of VA employees.



VA Vision and VHA Health Care Priorities

Care Delivery is core to our mission...

...and connecting Veterans to the soonest and best care is one of our key health care priorities




VHA provides Veterans with high quality care and a positive experience



67%

of VA medical centers included in the Overall Hospital Quality Star Ratings **received either 4 or 5 stars, compared to only 41% of non-VA hospitals**¹



10/10

VA facilities outperformed community hospitals on all 10 core patient satisfaction metrics in the April 2023 Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Star Ratings²



90%

of Veterans trust VA for their healthcare³ 22 of 26 peer-reviewed studies reported that non-surgical VA care was comparable or better than non-VA care; 11 of 13 studies reported that surgical VA care is comparable or better than non-VA care

1. VA Press Release 7/26/2023: Majority of VA health care facilities receive 4 or 5 stars in CMS quality ratings, outperforming non-VA facilities | 2. VA Press Release 6/20/2023: VA hospitals outperform private sector in patient experience | 3. VA Press Release, 5/8/2023: Studies show VA health care is better than or equal to non-VA health care; Veterans Health Administration (VA) vs. Non-VA Healthcare Quality: A Systematic Review. Journal of General Internal Medicine 38, 2179-2188 (2023).

Veterans Community Care Program Eligibility Overview

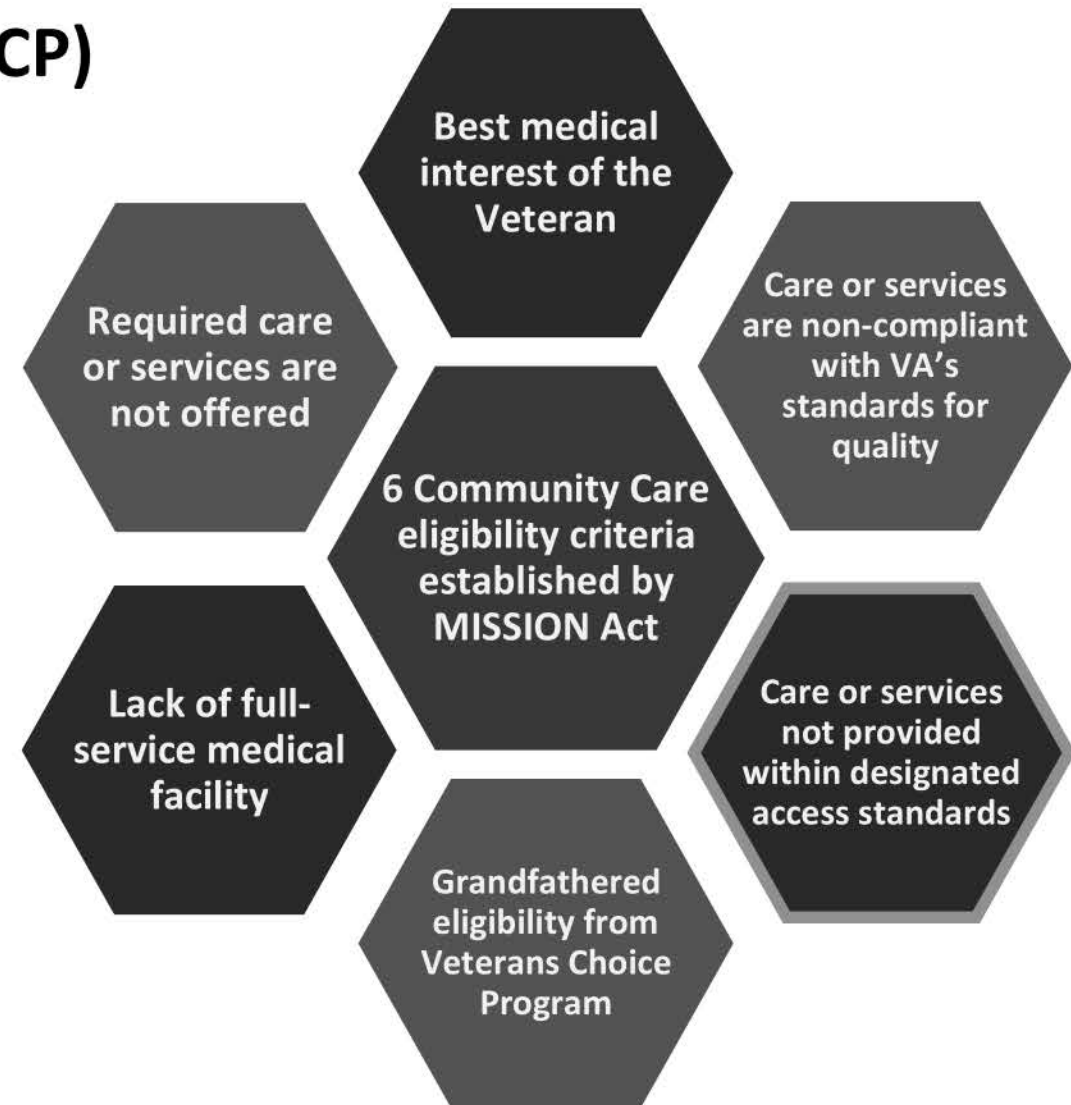
Community Care Program (VCCP)

VCCP Eligibility

- Under the MISSION Act, signed in June 2018 and implemented on June 6, 2019, there are six different eligibility criteria for community care
- To be eligible under the designated access standards criteria, the following access standards

ACCESS STANDARDS	Primary Care, Mental Health, Non-institutional Extended Care	Specialty Care
Drive Time	30 minutes	60 minutes
Wait Time	20 days	28 days

- MISSION Act requires VA to review the access standards and submit a report of findings and any modification to the designated access standards at least once every three years



VA Community Care Program: Third-party payment

Service-connected care

Care not eligible for Community Care Program

- If care is received at VA facilities, **cost of care will be covered** according to the Veteran's priority group.¹ If a Veteran has private health insurance, this coverage can be applied towards VA copayments²
- Veterans can also choose to receive care **at non-VA facilities**; in this case, the Veteran could **cover the cost through third-party insurance**²

Care received through Community Care Program

- If a Veteran is pre-authorized to receive care at non-VA facilities through the Community Care Program (e.g., due to wait time, service not available), the **VA reimburses the private sector hospital** up to the maximum allowable rate (generally **Medicare rates, as determined by CMS**)³

Nonservice-connected care

- VA is **required by law to bill private health insurance** for medical care, supplies, and prescriptions provided in treatment of Veteran's nonservice-connected conditions, and the **Veteran may have a co-pay** to the VA²

1. [About VA health benefits](#) 2. [VA health care and other insurance](#) | 3. [VA Fee Schedule](#)

Medicare & Veterans' benefits – Common questions from Medicare.gov

I have Medicare and Veterans' benefits. Who pays first?

If you have (or can get) both Medicare and Veterans' benefits, you can get treatment under either program. However, Medicare is never the secondary payer after the Department of Veterans Affairs (VA). Each time you get health care or see a doctor, you must choose which benefits to use. Medicare can't pay for the same service that your Veterans' benefits covered, and your Veterans' benefits can't pay for the same service that Medicare covered. *Note: For the VA to pay for services, you must go to a VA facility or have the VA authorize services in a non-VA facility.*

Are there any situations when both Medicare and the VA may pay?

Yes. If the VA authorizes services in a non-VA hospital, but didn't authorize all of the services you get during your hospital stay, then Medicare may pay for the Medicare covered services the VA didn't authorize.

Example: *Bob is a Veteran. He goes to a non-VA hospital for a surgery the VA authorized. While at the non-VA hospital, Bob gets other non-VA authorized services that the VA won't cover. Some of these services are Medicare-covered services. Medicare may pay for some of Bob's non-VA authorized services. Bob will have to pay for services that neither Medicare nor the VA cover.*

If the doctor accepts you as a patient and bills the VA for VA-authorized services, the doctor must accept the VA's payment as payment in full. The doctor can't bill you or Medicare for these services. If your doctor doesn't accept the fee-basis ID card, you'll need to file a claim with the VA yourself. The VA will pay the approved amount either to you or to your doctor.

Enrollees with Multiple Eligibilities, (VHA, Medicare, DHA, Medicaid, etc.)

Type of Ins	# of Unique's
WNR(Will not reimburse)	316,234
BCBS	105,666
TRICARE	79,549
Optum/optumrx	72,323
Caremark	54,210
United	39,705
CIGNA	38,510
Aetna	32,946
Express scripts	29,253
prime/primetherapeutics	14,522
Other ins	1,069,042
Total	1,851,960.00

Source: Spatient and SpatientInsurance tables on the CDW Production Server, Accessed 12/28/2023

Contents

Background context

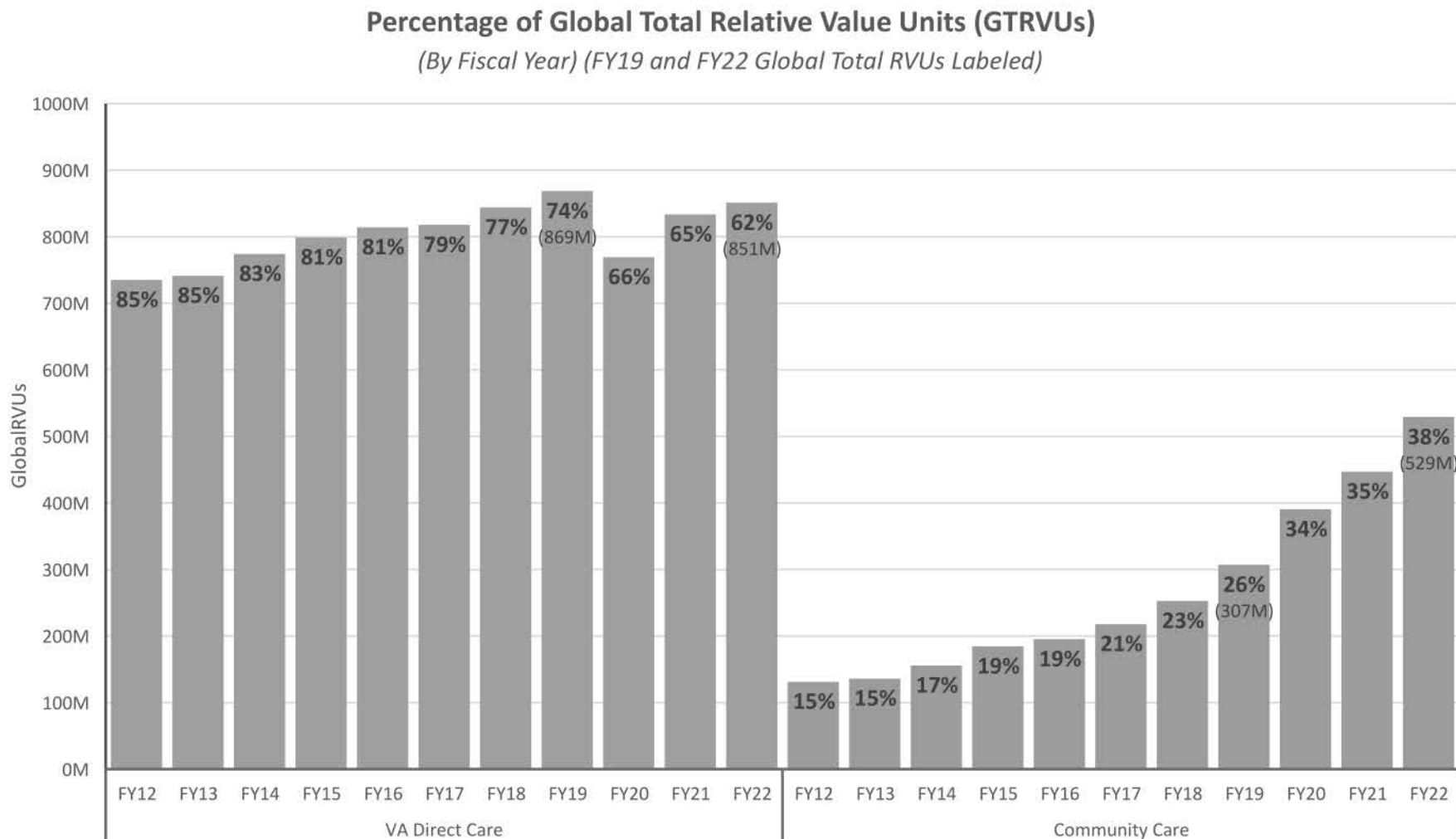
Current state in access and community care across VHA

VHA access sprints

Other VHA strategies to expand access and address community care spend

The proportion of VA community care utilization and the rate of growth of community care utilization have increased over the past decade

- Utilization is measured through EHCPM Global Total RVUs
- For care available through both direct care and community care, **the portion provided through community care has increased each year since FY 2012**
- The rate of growth has increased in recent years**
- The community care percentage continued to increase significantly in FY 2022
- Community care projected to represent 40-42% of total VA care in 2023**



Data As Of April 2023

Source: EHCPM

Working Draft, Pre-Decisional, Deliberative Document – Internal VA Use Only

PRELIMINARY – FOR DISCUSSION

VA



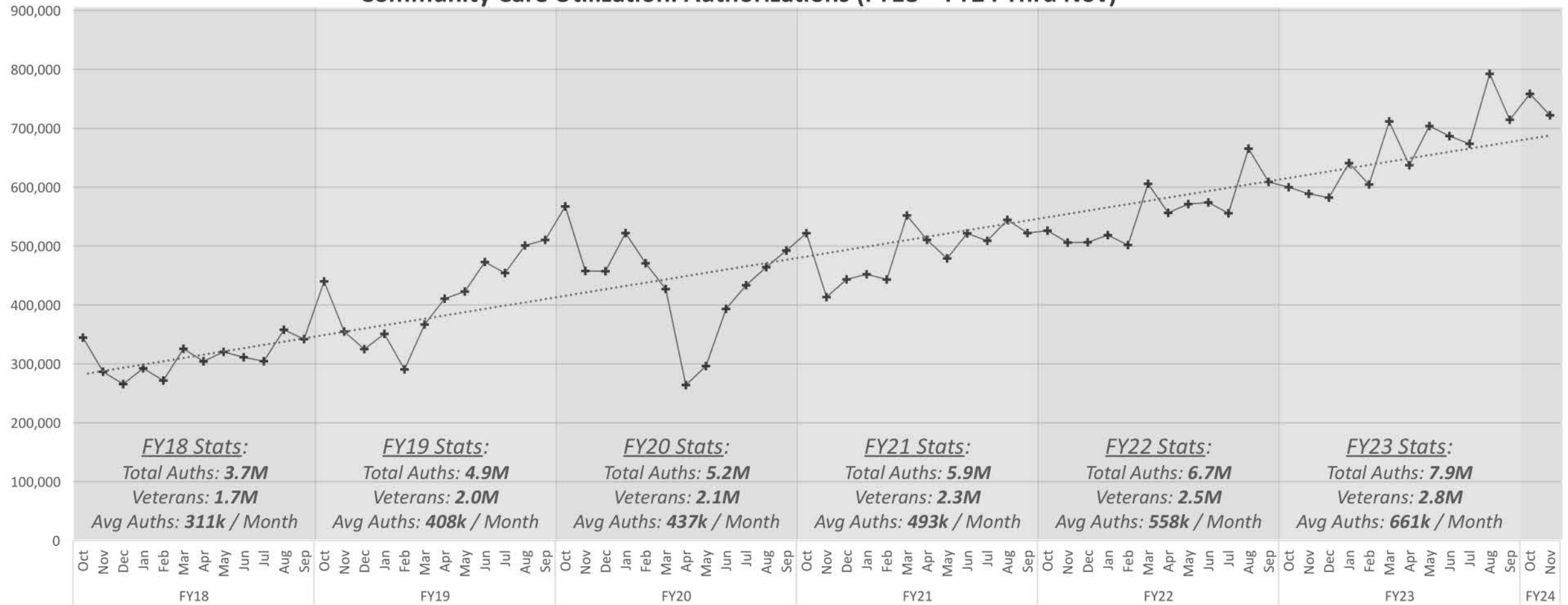
U.S. Department
of Veterans Affairs

Growth in community care distinct users (Veterans) and authorizations every year

Nineteen percent (19%) growth in authorizations in Fiscal Year 2023 (compared to FY22)

FY24 Early Indicators: 12% growth in authorizations (average per month) compared to FY23

Community Care Utilization: Authorizations (FY18 – FY24 Thru Nov)



Data As Of Jan 2, 2024

Source: VSSC Community Care Referrals Cube

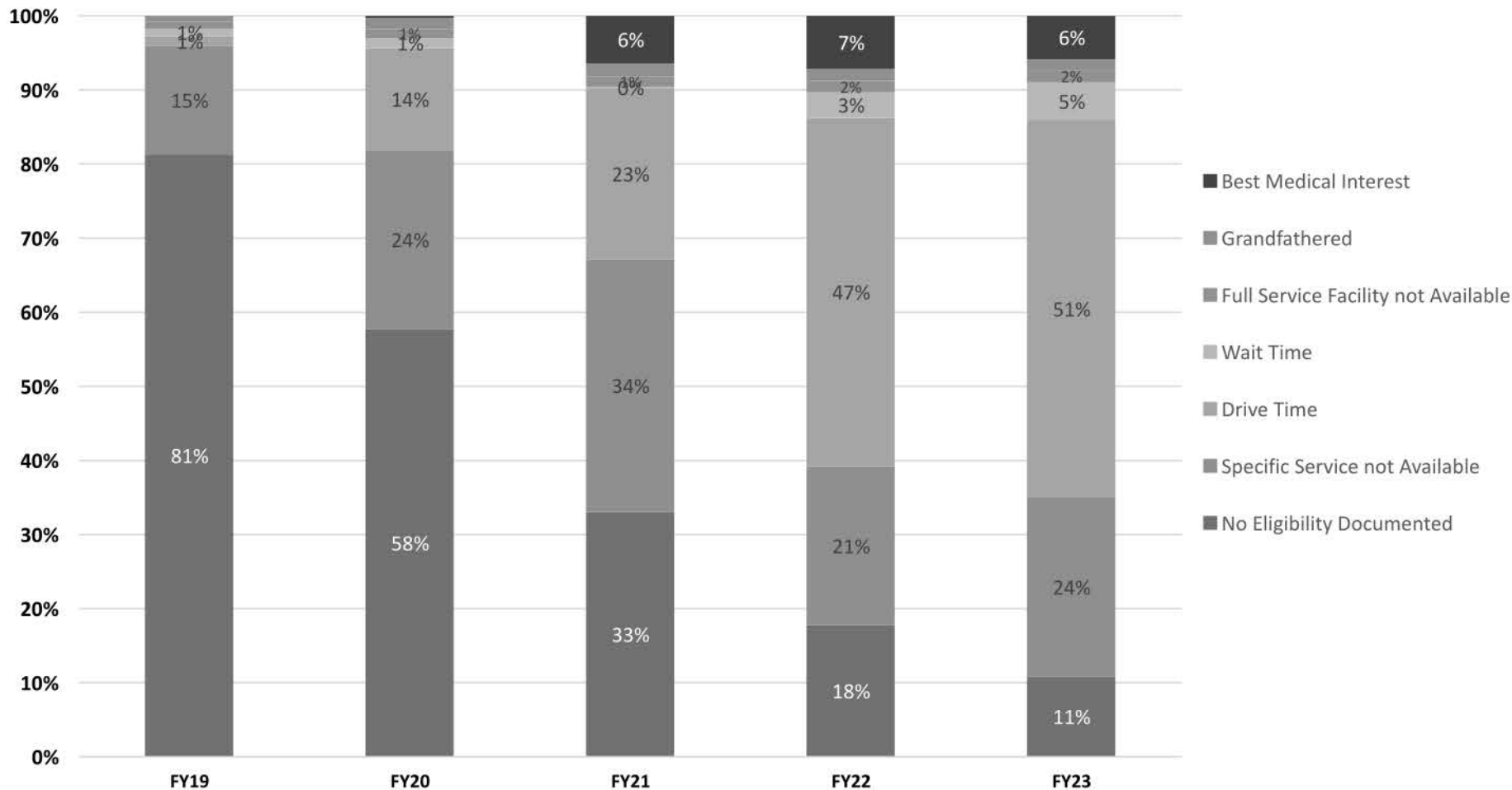
Working Draft, Pre-Decisional, Deliberative Document – Internal VA Use Only



U.S. Department
of Veterans Affairs

Community Care Consults by Eligibility Distribution

Eligibility Criteria Capture made significant improvement in FY22 Veteran Drive-Time has Steadily Increased Through the Years



Three eligibilities for community care (grandfathered, full-service facility, drive time) are static, and the remaining three eligibilities (service not available, best medical interest, wait time) are manually evaluated as needed

Some Veterans may still be eligible for community care in manually evaluated categories (e.g., wait time) **even after addressing static eligibilities** (e.g., drive time)

Full-service VA facility is a facility that provides hospital care, emergency medical services, and surgical care and having a surgical complexity designation of at least "standard." Applies to Veterans living in Alaska, Hawaii, New Hampshire, and the U.S. territories of Guam, American Samoa, the Northern Mariana Islands, and the U.S. Virgin Islands where no full-service VA facility exist

Data excludes consults in a cancelled or discontinued status.

Excludes Emergency Care consults

Community Care Eligibility--Costs and Percentages

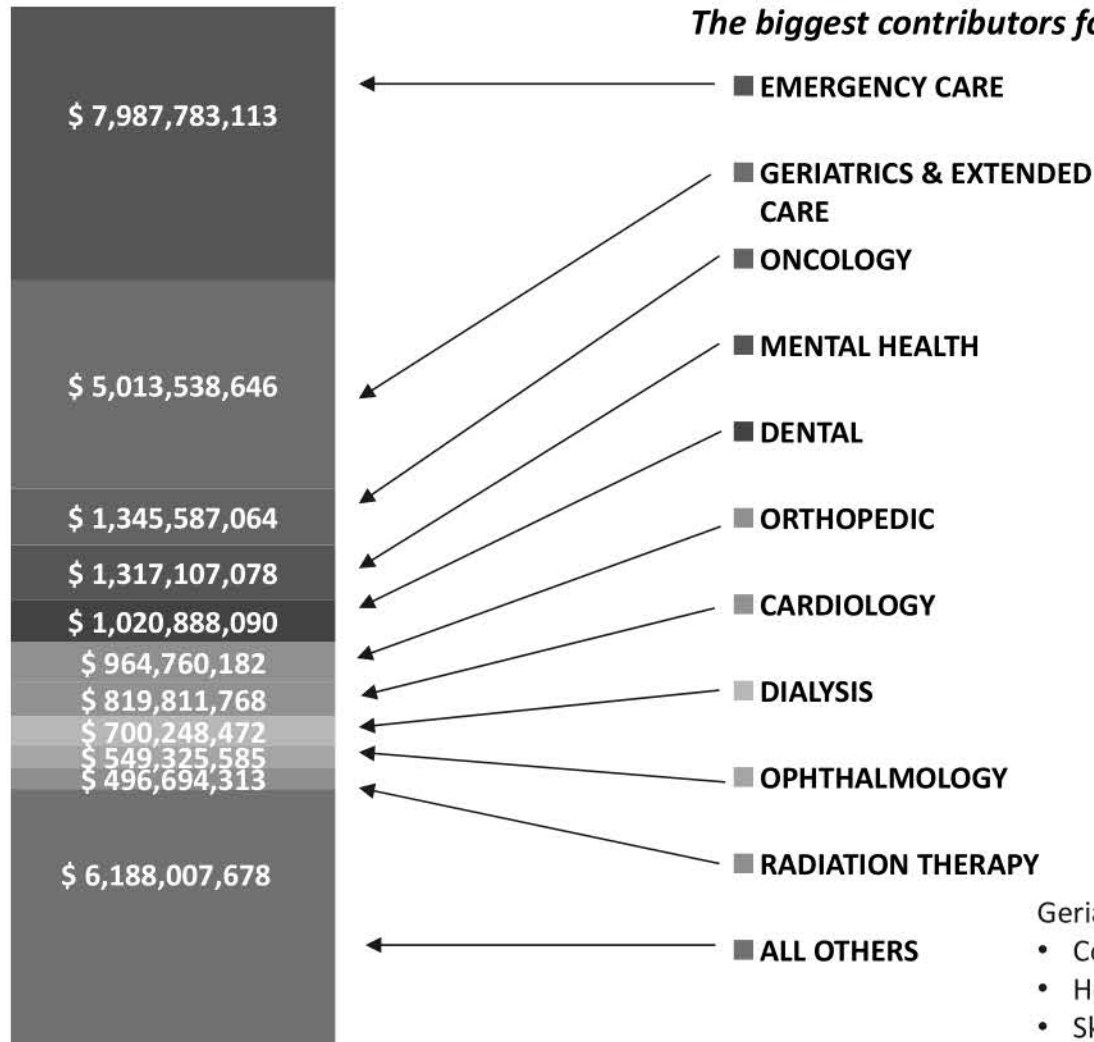
Eligibility (Excluding ER and GEC)	Total Paid	Total Referrals	% total Paid	% Total Referrals
Best Medical Interest	\$ 983,759,527.68	462,000	4.49%	6.69%
Drive Time	\$ 7,522,396,575.47	3,416,164	34.30%	49.45%
Full-Service Facility not Available	\$ 247,083,625.54	156,499	1.13%	2.27%
Grandfathered	\$ 219,768,490.44	103,335	1.00%	1.50%
No Eligibility Completed	\$ 58,177,630.70	36,555	0.27%	0.53%
NULL	\$ 2,661,894,873.67	273,943	12.14%	3.97%
Specific Service not Available	\$ 1,075,862,854.09	321,208	4.91%	4.65%
Wait Time	\$ 921,553,947.49	797,826	4.20%	11.55%
Grand Total	\$ 21,933,032,546.83	6,908,158	100.00%	100.00%

- 50% of all referrals for services in FY23 were in the “Drive Time” eligibility category accounting for 34% of the cost. (excluding ER and GEC)
- “Null” eligibility accounts for 4% of total referrals but 12% of cost of Community Care referrals (excluding ER and GEC)
- Conversely “Wait Time” is 12% of total referrals and only 4% of the total cost (excluding ER and GEC)
- Specialty Care “Drive Time and Wait Time” make up 64% of total referrals (excluding ER)

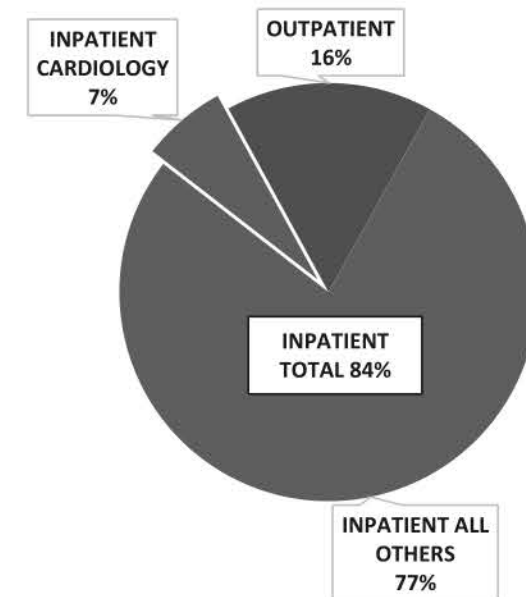
CC spending impacts on research/training mission

FY23 Community Care Expenditures by Category of Care

The biggest contributors for Community Care expenditures



Community Care Emergency Care Expenditures by Care Setting

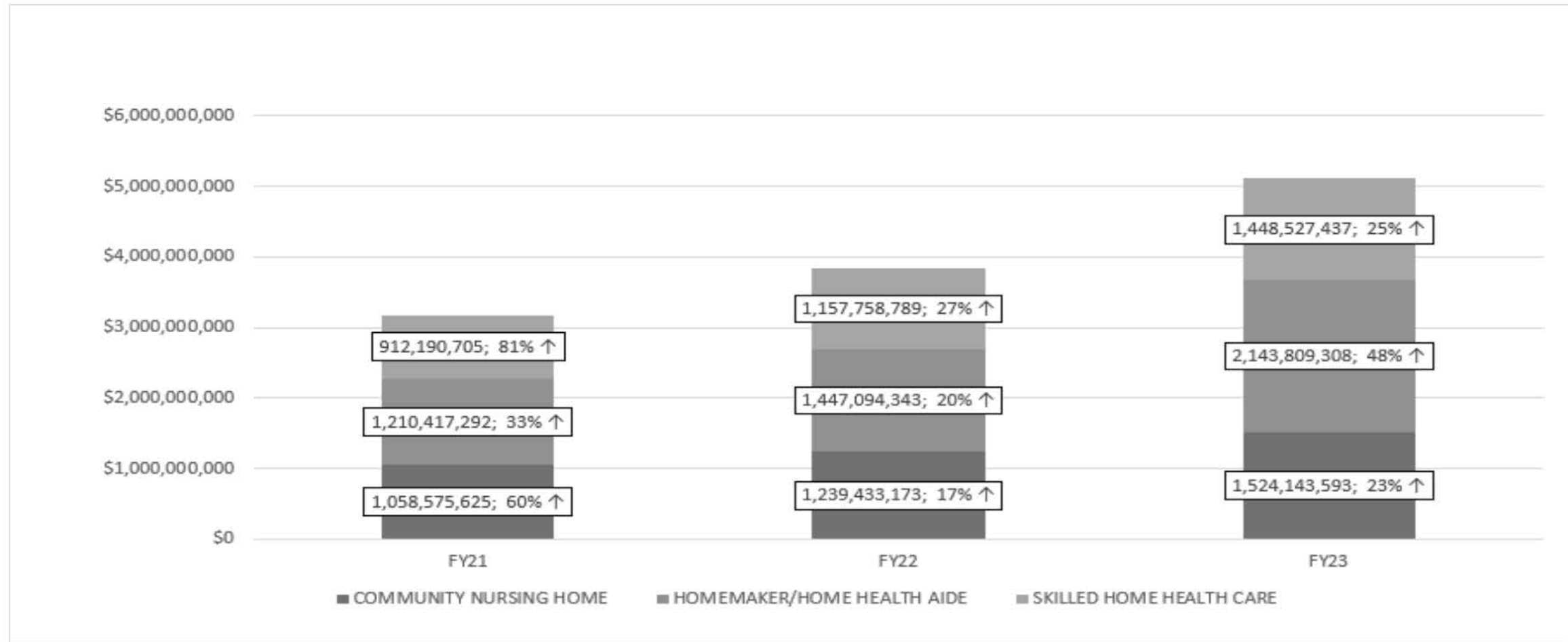


Geriatrics & Extended Care includes:

- Community Nursing Home
- Homemaker/Home Health Aide
- Skilled Home Healthcare

Note: ED cardiology expenditures indicated above only include cardiology procedure specific CPT codes and DRG's.

Geriatrics and Extended Care spend buckets



Source: Claims.

Paid inside of each FY

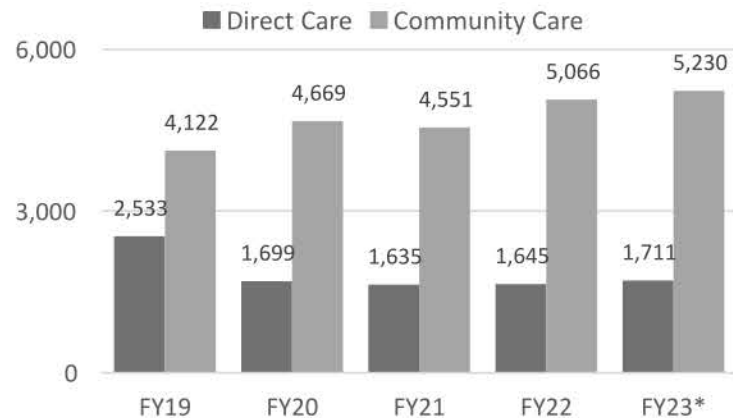
Utilization: Orthopedic & Cardiac Surgeries

Comparing Volumes: Direct Care & Community Care

- For the five major surgical procedures, post MISSION community care growth has outpaced direct care
- Key cardiac surgical procedures, CABG and cardiac valve (repair, replacement) have grown by 27% and 24% respectively since FY19 (as of FY23) for community care
 - In comparison direct care volumes indicate 32% and 43% decline during the period (FY19 to FY23 (annualized))
- Joint replacement surgeries via community care have grown by 52% (knee), 71% (hip) and 87% (shoulder) in the past five years

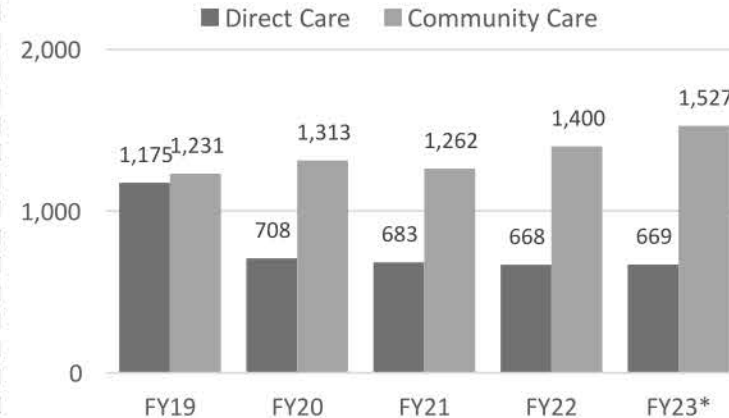
Coronary Artery Bypass Graft (CABG)

Number of Procedures: FY19 – FY23*



Cardiac Valve

Number of Procedures: FY19 - FY23*



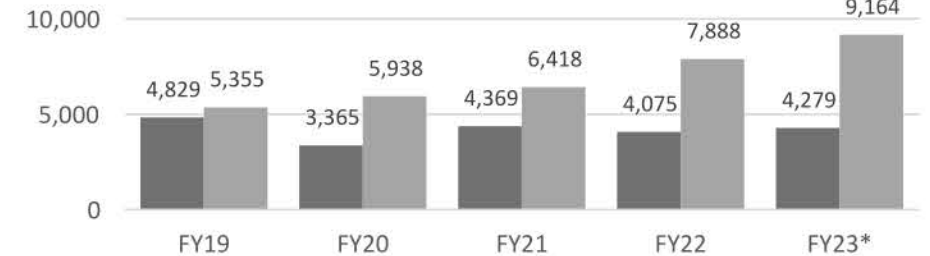
Total Knee Replacements

Number of Procedures: FY19 - FY23



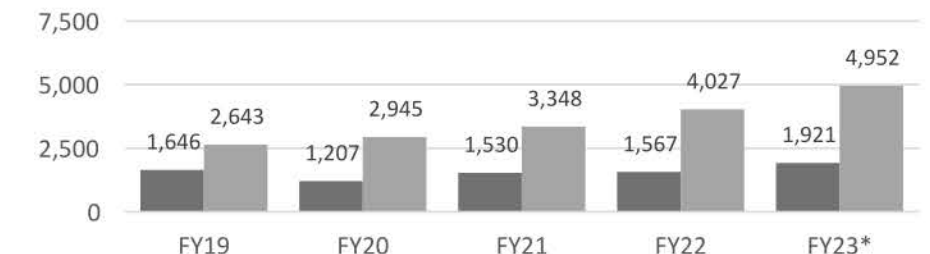
Total Hip Replacements

Number of Procedures: FY19 - FY23



Total Shoulder Replacements

Number of Procedures: FY19 - FY23



Source: National Surgery Office; Community Care Provider Claims

*FY23 direct care figures are annualized (projected from Q1-Q3 data)

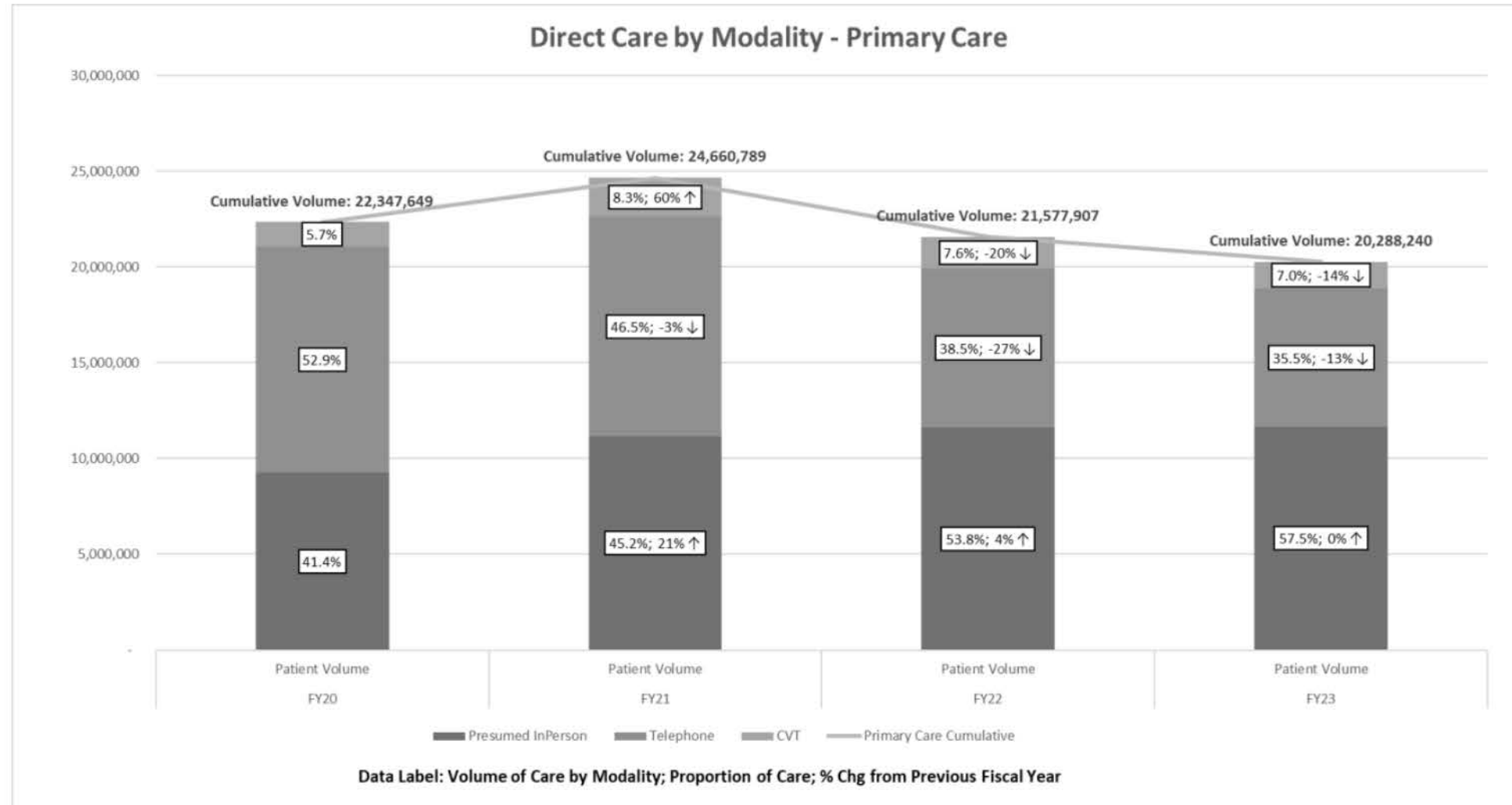
Working Draft, Pre-Decisional, Deliberative Document – Internal VA Use Only



U.S. Department
of Veterans Affairs

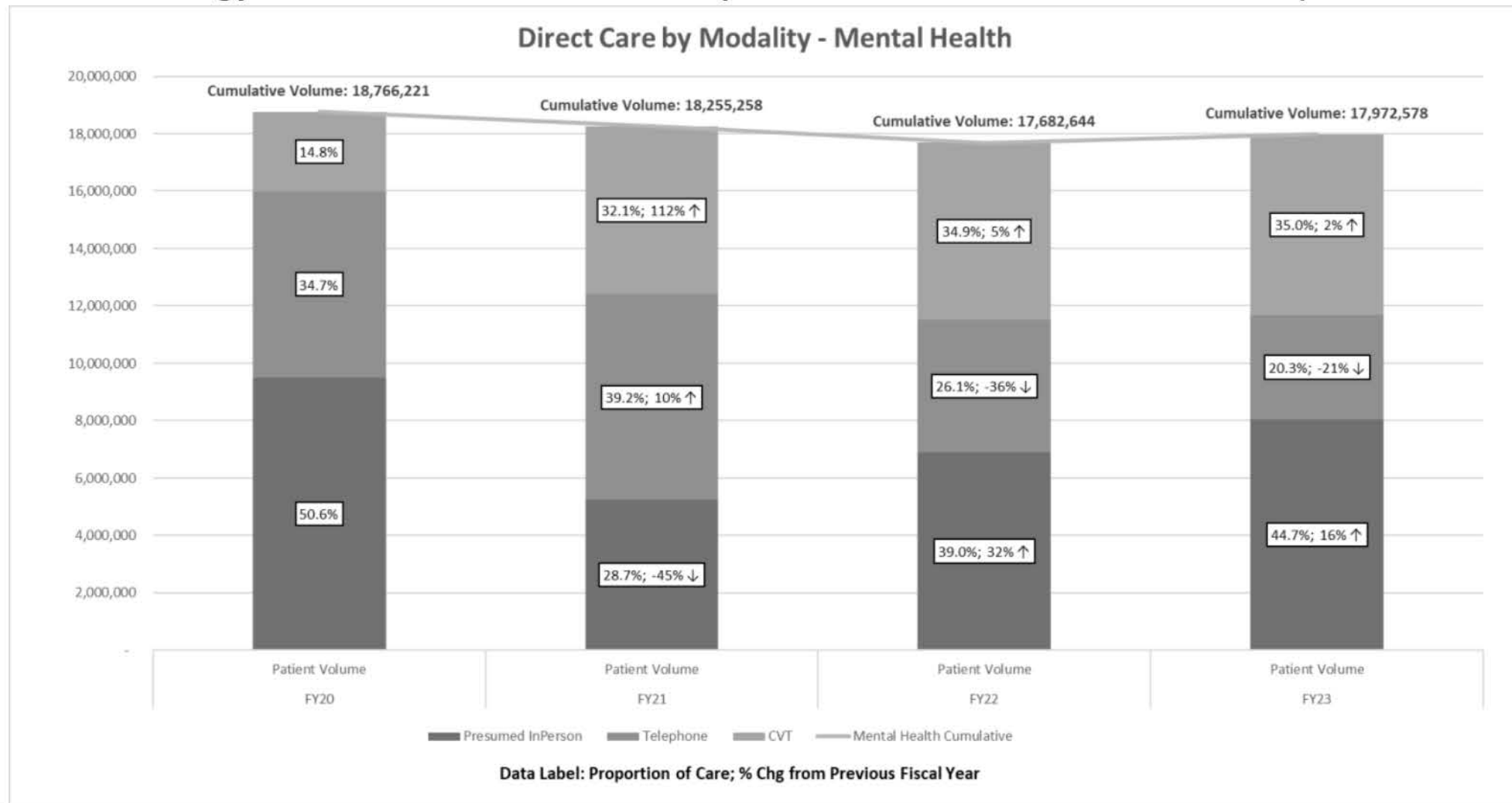
Patient Care by Modality – Primary Care

Revised Methodology – In-Person Encounters + Telephone Encounters + CVT Encounters (Telehealth)



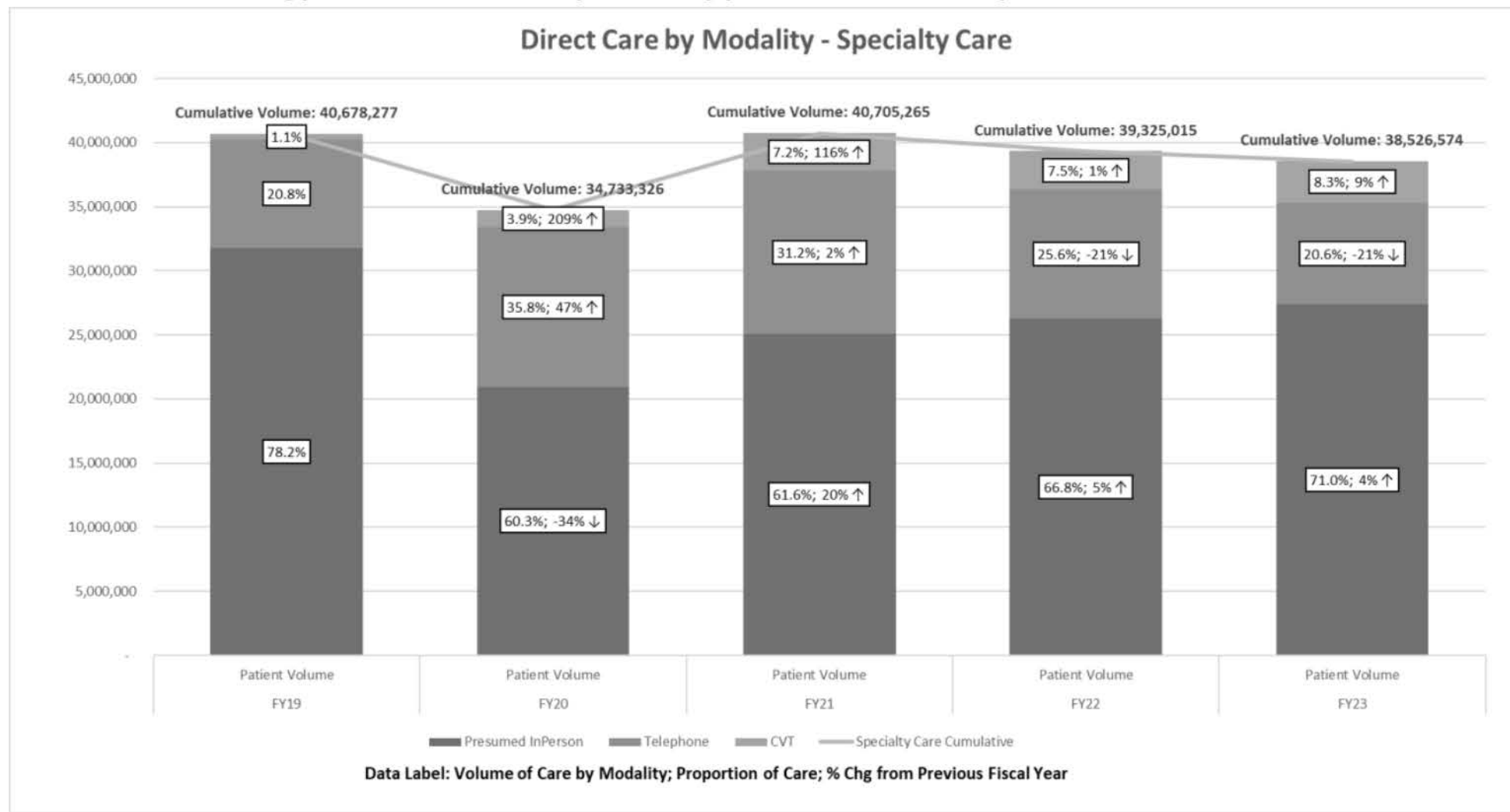
Patient Care by Modality – Mental Health

Revised Methodology – In-Person Encounters + Telephone Encounters + CVT Encounters (Telehealth)



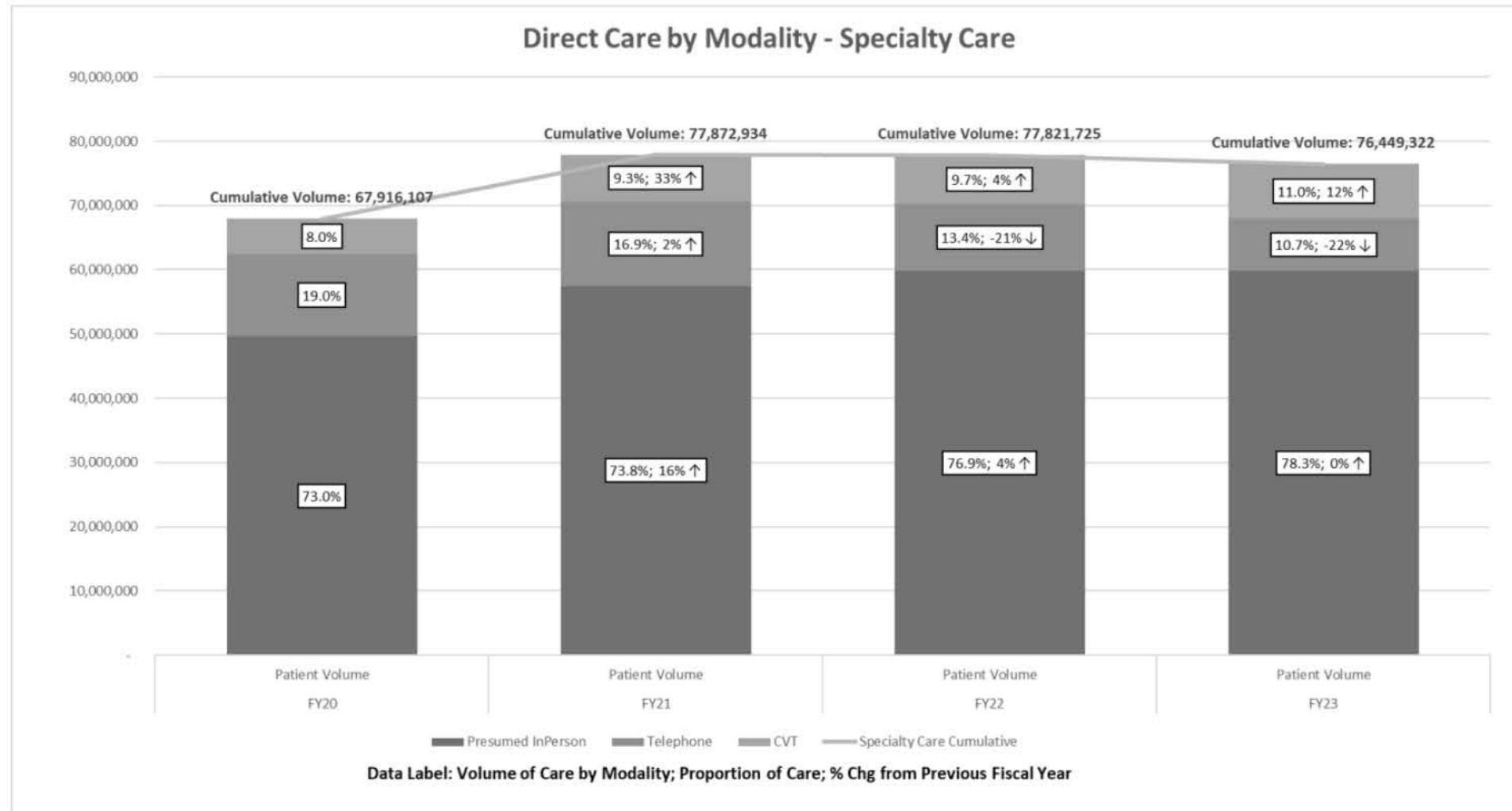
Patient Care by Modality – Specialty Care

Traditional Methodology – In-Person Completed Appointments + Telephone Encounters + CVT Encounters (Telehealth)



Patient Care by Modality – Specialty Care

Revised Methodology – In-Person Encounters + Telephone Encounters + CVT Encounters (Telehealth)

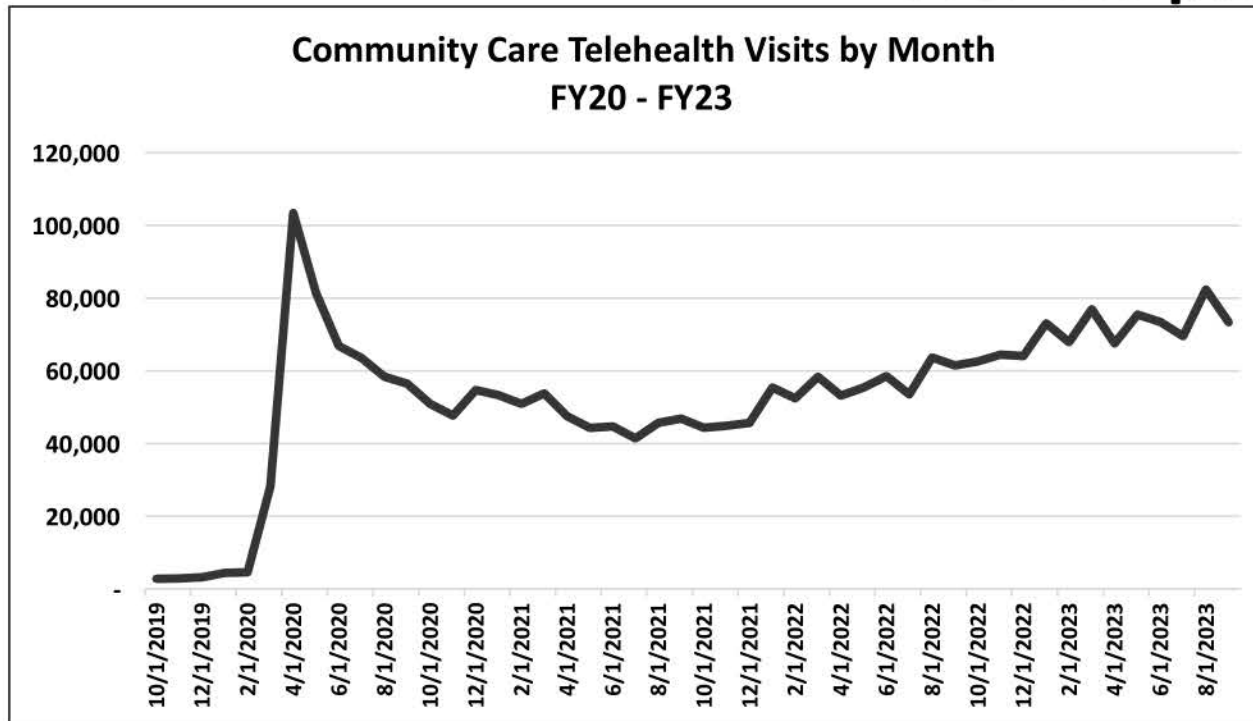


Primary Care-Encounters per Unique

- Majority of sites are averaging about 1.5 encounters per unique per month—meeting goal of 2.0 or less
- Four sites are averaging higher rates compared to the majority of VA sites
 - (V01) (650) Providence, RI HCS: 1.8 encounters per unique (PC Completed New Avg Wait Time by RD, FY24, Q1: 40.8)
 - (V05) (581) Huntington, WV HCS: 1.6 encounters per unique (PC Completed New Avg Wait Time by RD, FY24, Q1: 41.6)
 - (V08) (675) Orlando, FL HCS: 1.9 encounters per unique (PC Completed New Avg Wait Time by RD, FY24, Q1: 16.0)
 - (V22) (691) Greater Los Angeles, CA HCS: 1.7 encounters per unique (PC Completed New Avg Wait Time by RD, FY24, Q1: 26.3)

Community Care Telehealth Totals

Utilization grew dramatically at the start of the pandemic. Steady growth over the past 2 years



FY23 TOP 10 CATEGORIES OF CARE FOR TELEHEALTH	
Category of Care	Visits (#)
MENTAL HEALTH	671,635
EMERGENCY CARE*	21,254
PAIN MANAGEMENT	20,806
COMPLEMENTARY AND INTEGRATIVE HEALTH	14,020
GASTROENTEROLOGY	11,733
ONCOLOGY	11,147
PRIMARY CARE	9,840
UROLOGY	8,972
NEUROLOGY	8,394
CARDIOLOGY	7,691

Mental Health is the number one category of care for community care telehealth over the past 4 fiscal years. Over 71% of all telehealth visits are for Mental Health.

*Emergency Care telehealth visits translate to identifiable telehealth services billed on a community care claim traced back to an Emergency Care referral. While these may deviate from the normal definition of an appointment, they still represent telehealth services provided during an ER episode of care.

Source: IVC Integrated Informatics and Analytics Community Care Telehealth PowerBI dashboard [Community Care Telehealth PowerBI \(powerbi.com\)](#)

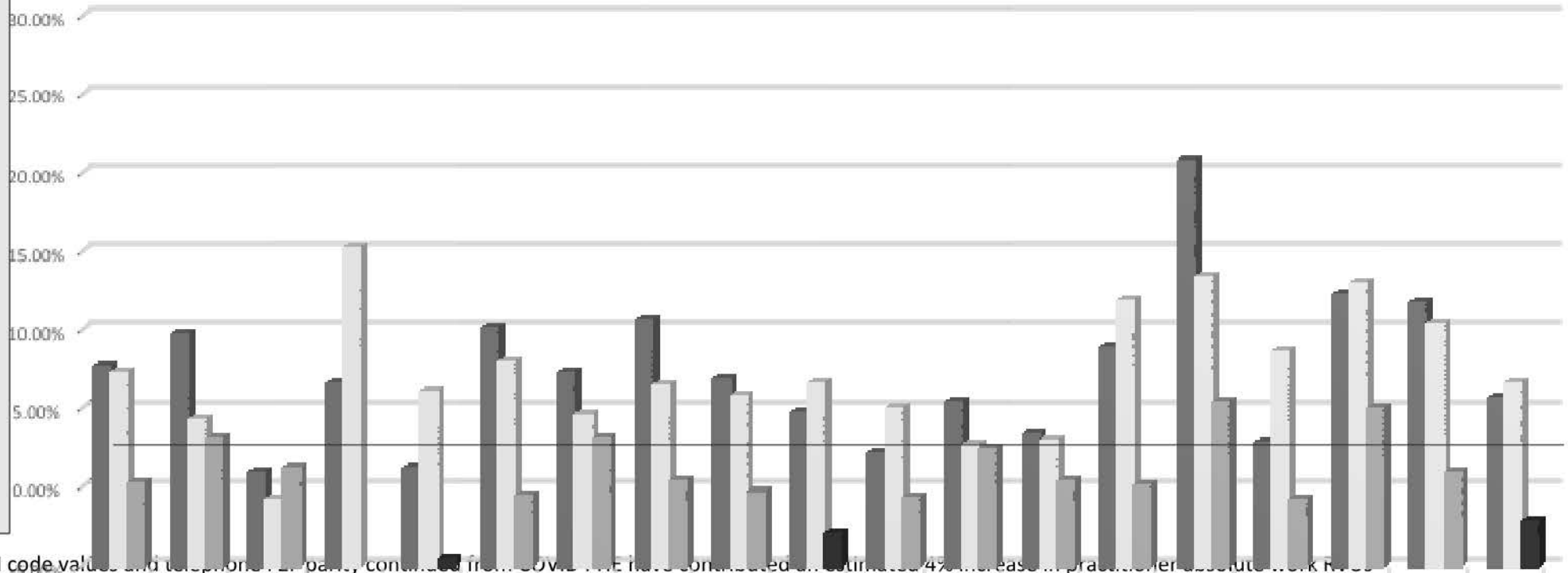
Practitioner RVU Workload Increase

FY19-FY23 saw workforce capacity increase by 12.31% and practitioner work RVUs increase by 12.67% (and a 5.34% clinical productivity increase)

Work RVUs (used to measure clinical productivity in VHA) reflects the provider workload component of Global RVUs.

Global RVUs (used in EHCPM model) covers the entire range of healthcare services (all workload, lab/pharmacy costs, prosthetics, and other practice expenditures to include administrative/support staff costs, supplies/equipment, and facility expenses). They are not impacted by E&M code changes (same weights applied).

Budgetary productivity metrics (used by Finance) measures total encounters divided by total provider FTEE or total resource use per FTEE.



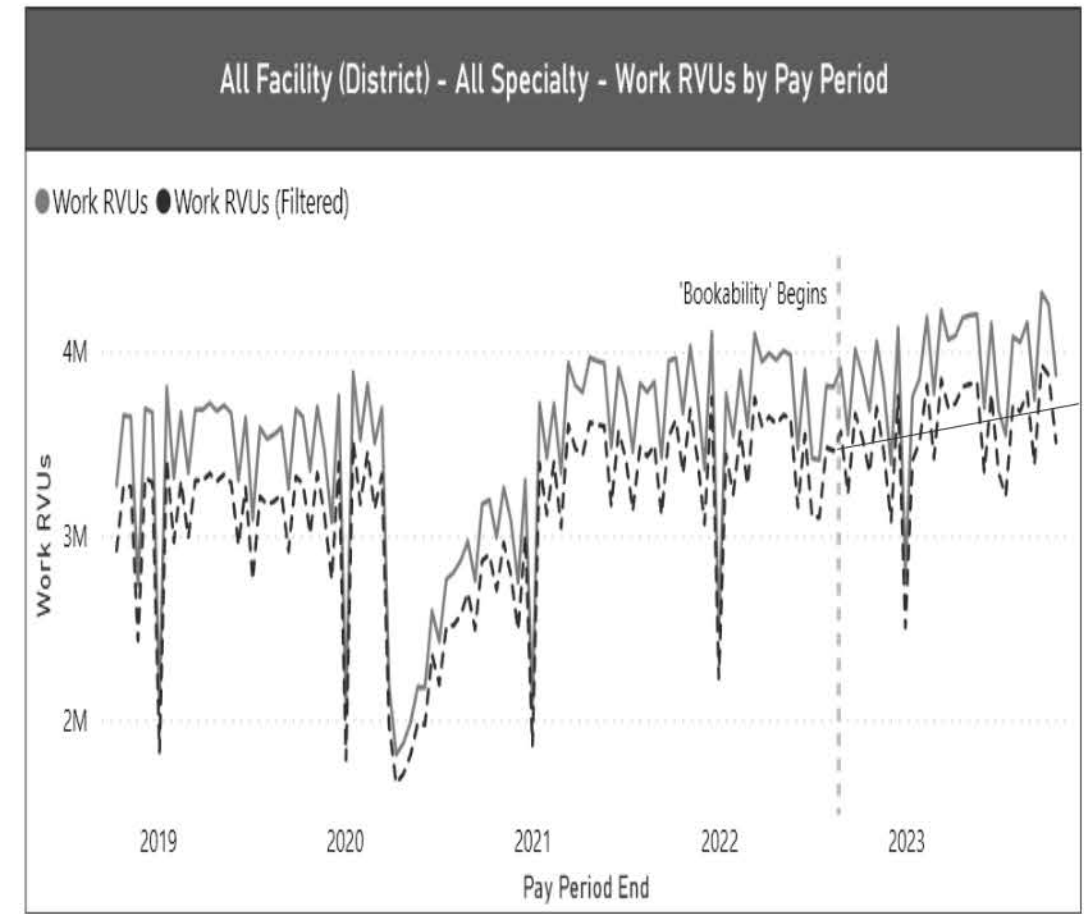
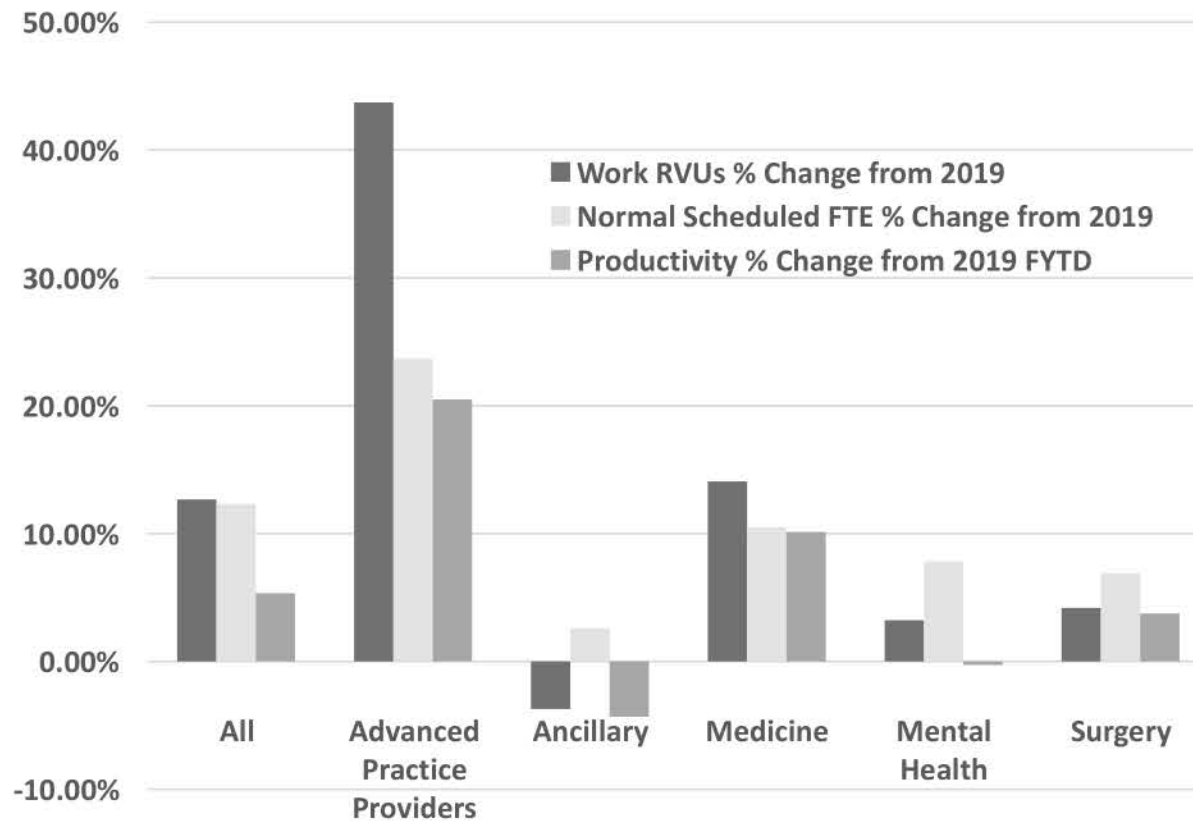
Note: FY21 increases in E&M code values and telephone triage calls from COVID-19 have contributed to an estimated 4% increase in practitioner absolute work RVUs.

■ Work RVUs % Change from 2019 ■ Normal Scheduled FTE % Change from 2019 ■ Productivity % Change from 2019 FYTD

Growth by Practitioner Groups

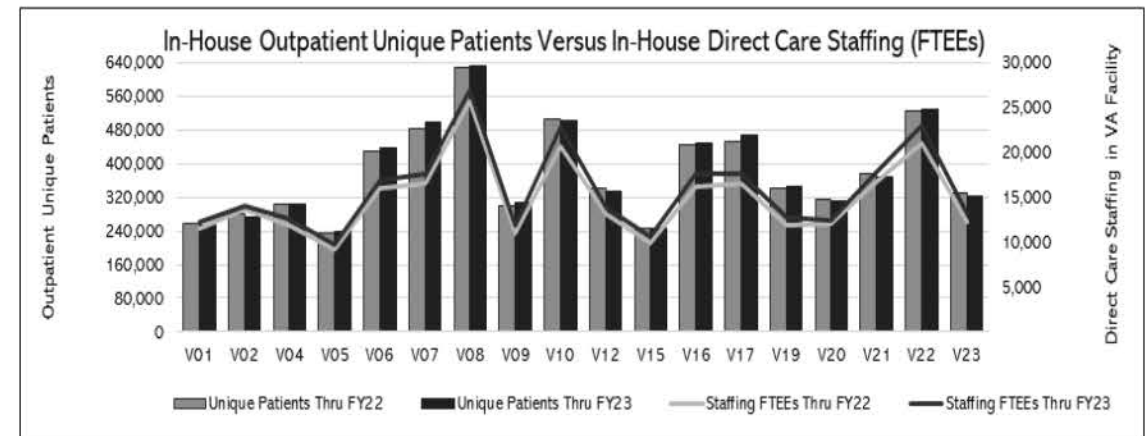
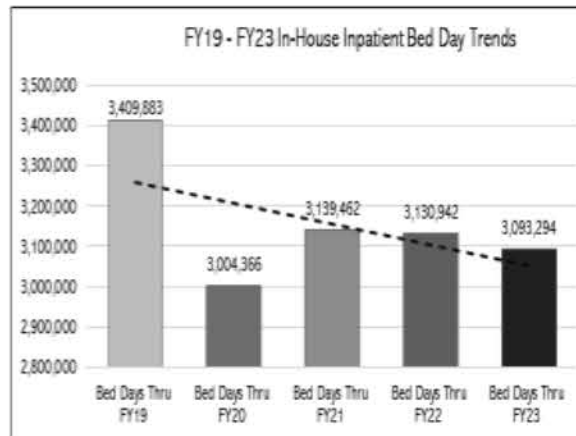
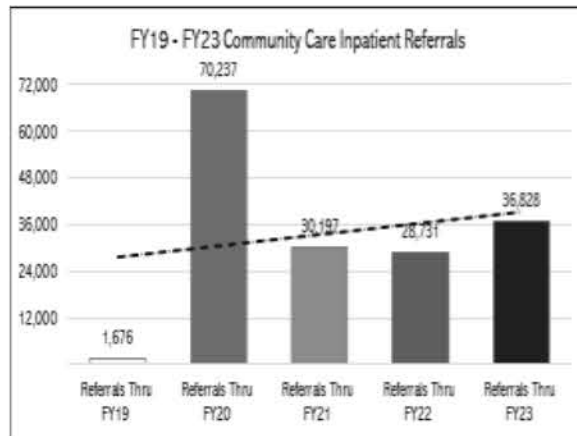
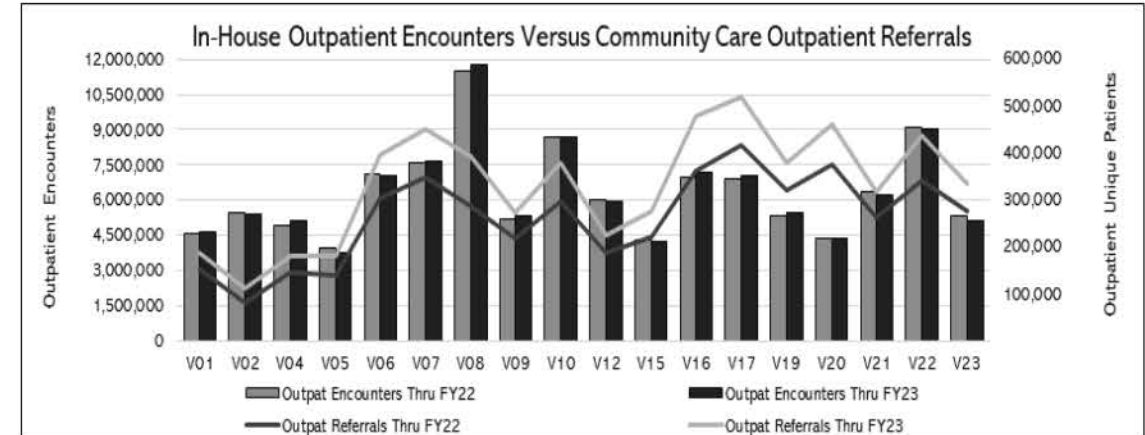
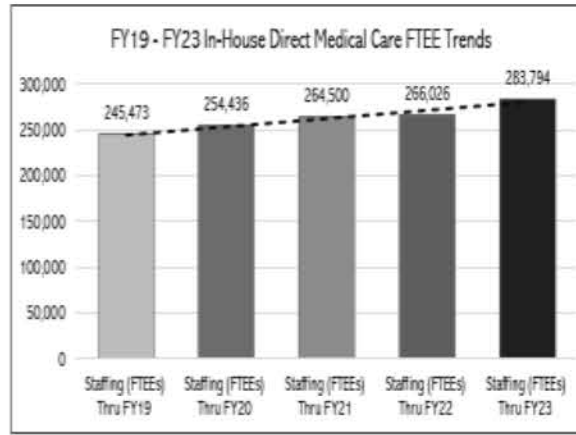
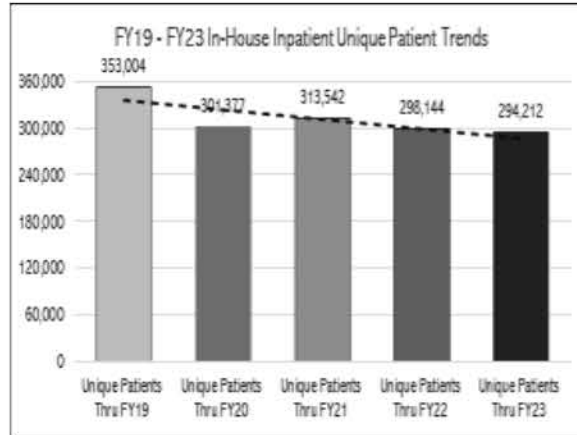
FY19-FY23 saw growth by most practitioner groups, with the greatest workload and productivity increases by Advanced Practice Providers

Specialty/Program Growth:
Workload, Workforce & Productivity



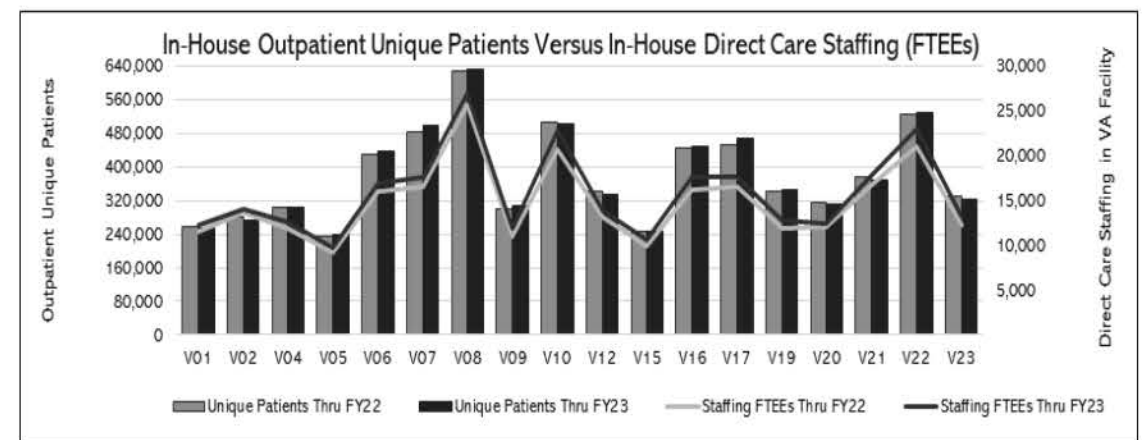
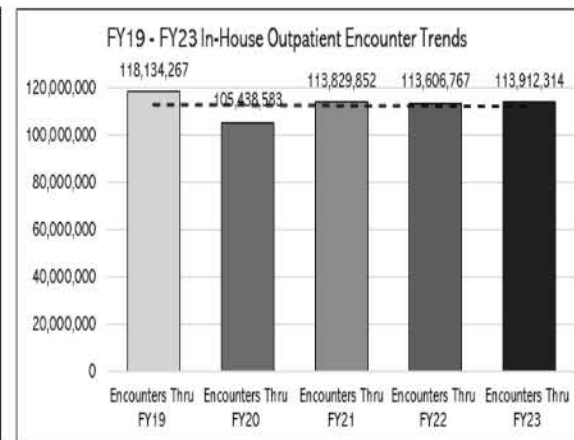
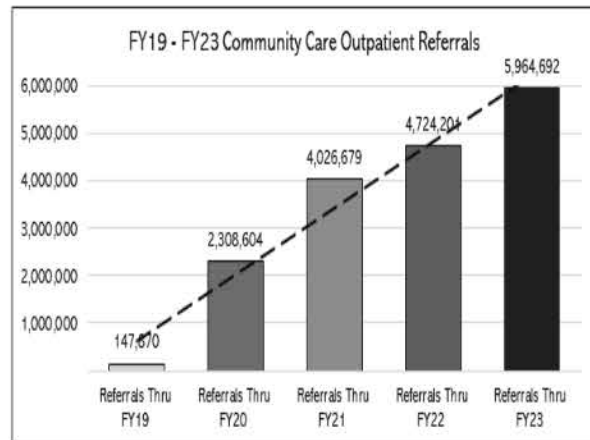
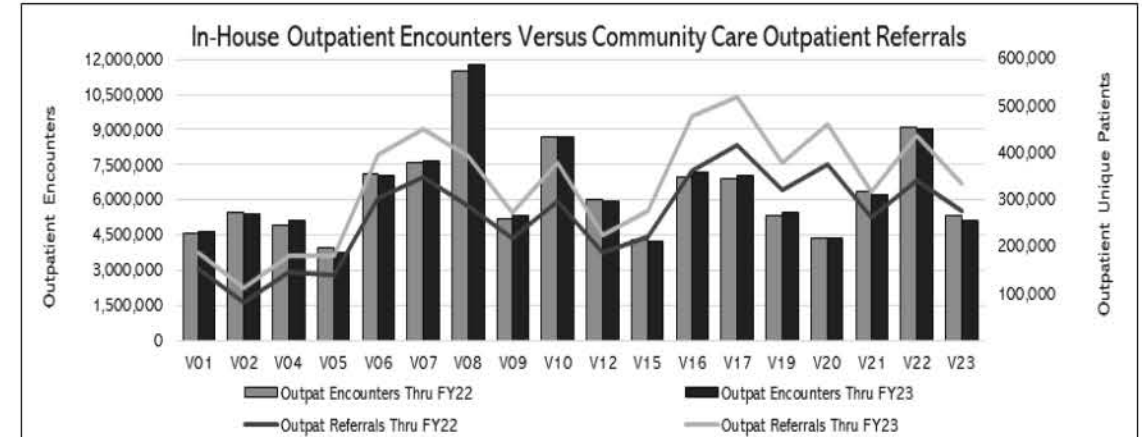
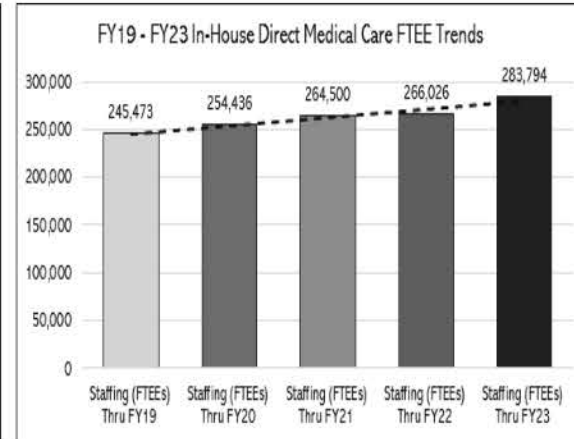
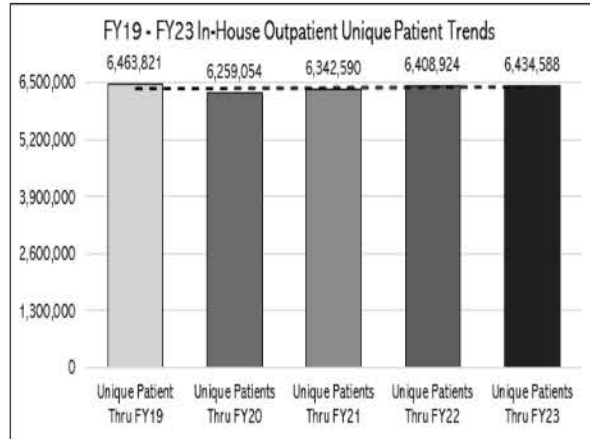
Inpatient Encounters

**INPATIENT encounters decreased significantly while staffing increased;
FY23 community care referrals increased by 28.2% from FY22**



Outpatient Encounters

OUTPATIENT encounters decreased while staffing increased; FY23 community care referrals increased by 26.3% from FY22 (158% from FY20)



Contents

Background context

Current state in access and community care across VHA

VHA access sprints

Other VHA strategies to expand access and address community care spend

Ensuring Veterans have access to the soonest and best care

Given recent industry trends (e.g., rising demand for care, workforce shortages), **and VHA-specific trends** (e.g., increase demand from PACT Act, increasing Veteran Choice, rising community care spend), **it is becoming more important for VHA to consistently offer the soonest and best care for Veterans across locations and specialties**

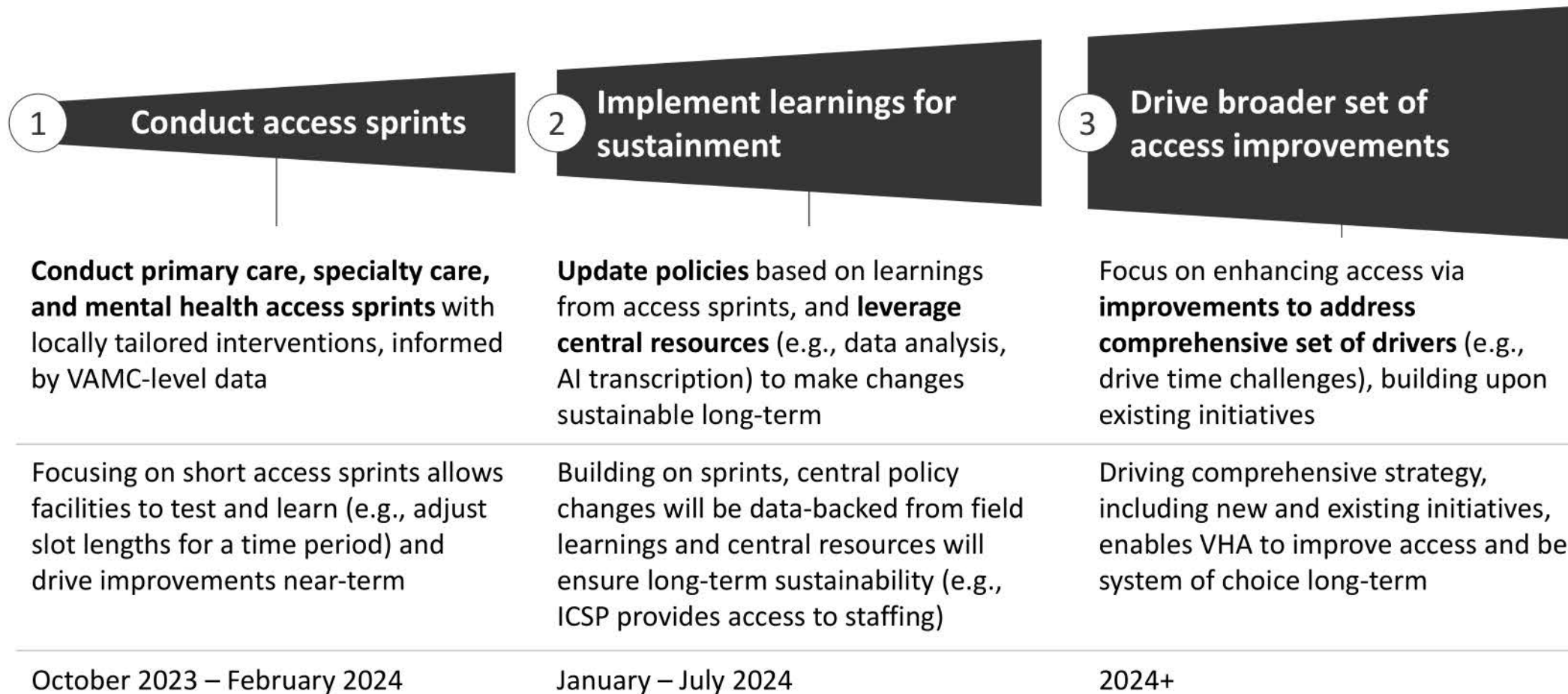
To be the system of choice across locations and specialties, VHA services need to be available...

- **When** Veterans need care (access)
- **Where** Veterans need care (physical location or virtual)
- **How** Veterans need care (high quality and experience)
- And be **What** Veterans need (services available)

If Veterans consistently prefer VHA services and can receive VHA care when and where it is needed, VHA can optimize community care spend while preserving Veteran Choice.
Additional factors could continue to influence community care spend in future years, both ones that are outside of VHA control (e.g., medical inflation, rising utilization), and within VHA control (e.g., operational processes related to referrals)

Given these trends, the USH asked for a refreshed look at soonest and best care strategies and the following roadmap was created to deploy “Access Sprints”

Strategic roadmap to optimize access across VHA



In parallel, VHA could stand up **central leadership team and performance management structure** to support effort and monitor progress

Roadmap

Through implementing this roadmap, by 2024, VHA could achieve...

Demonstrated quick wins

Demonstrated impact on 'quick wins' (e.g., decreasing primary care and mental health wait times)

Go-forward central standards

Alignment on new standards (e.g., clinical support staff, panel size, etc.) and path forward to implement

Focused leaders and supports

Dedicated central team with toolkits and data to support field to implement action plans

Concrete local action plans

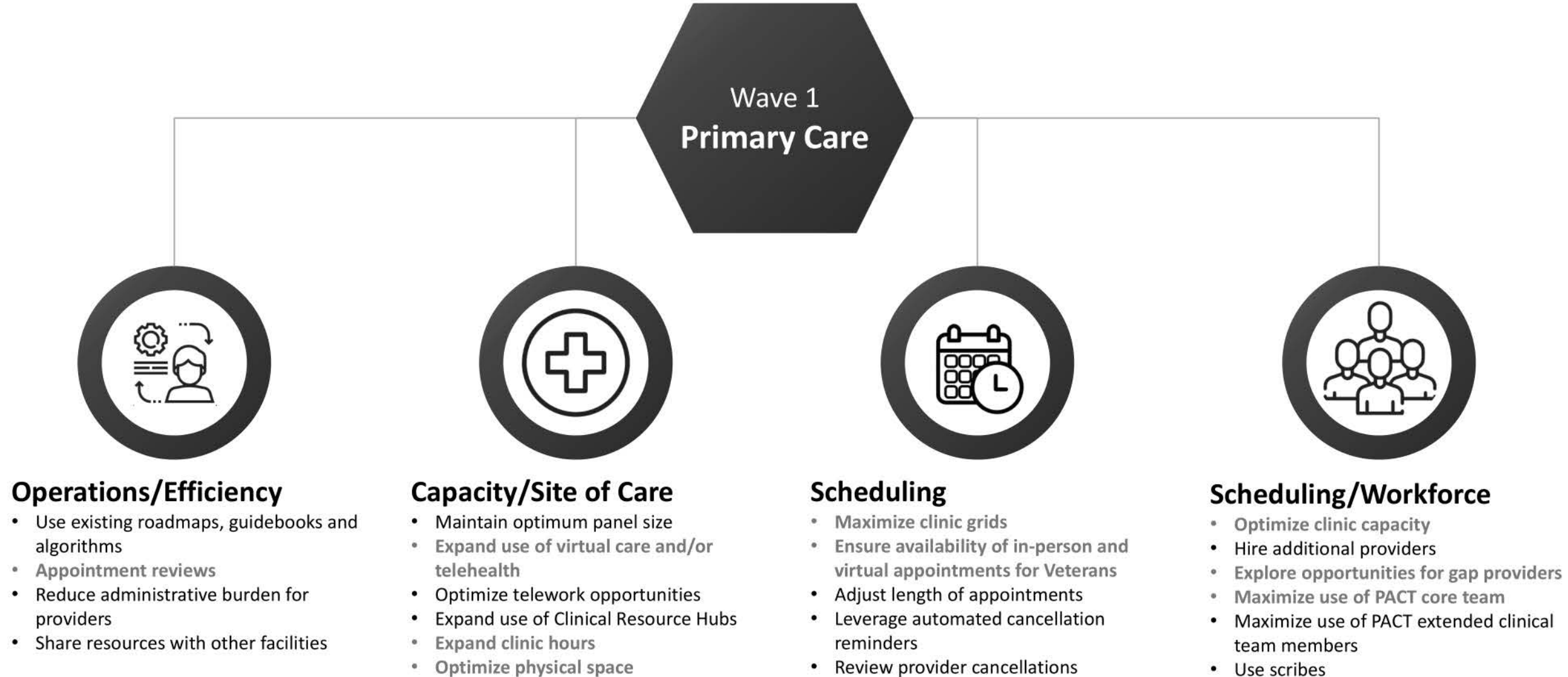
Development of local plans and infrastructure to address other access factors (e.g., drive time)

Performance management

Regular review of plan implementation and progress, and sharing of best practices



Access Sprint Solutions – Primary Care



Executive Summary: Impact of Primary and Specialty Care Access Sprints

In the 8 weeks prior to the access sprints, VHA saw 6% more new patients than the same time the prior year (for specialties included in sprints). The access sprints further increased the number of new patients seen in these specialties as VHA saw 11% more new patients during the sprint compared to the same time the prior year. However, in a healthcare environment with increasing demand for care, increases in capacity would need to exceed the rate of demand growth to reduce wait times. While VHA saw declines in wait times for some specialties during the sprint (e.g., primary care, cardiology), wait times for other specialties remained unchanged or increased slightly (e.g., neurology, GI), which may have been due to increasing demand for care.

Initial data from the access sprints shows a **~14% reduction in pending community care consults (989 patient visits) due to wait time eligibility¹ for VAMCs² participating in primary or specialty care sprints**. Enterprise-wide across all VAMCs for the participating specialties, pending CC consults due to wait time decreased by ~7% during the same period.

Access sprints enabled **15K incremental new patient visits³** across specialties at participating VAMCs for 8 weeks during the sprint⁴ compared to same period prior year. Specifically:

- During the **primary care** sprint, VHA saw **11% more patients** across all VAMCs than same period prior year (vs. 6% more than prior year during pre-sprint).
- During the **neurology** sprint, VHA saw **18% more patients** at participating VAMCs than same period prior year (vs. 10% more than prior year during pre-sprint).
- During the **gastroenterology** sprint, VHA saw **10% more patients** at participating VAMCs than same period prior year (vs. 5% more than prior year during pre-sprint).
- During the **cardiology** sprint, VHA saw **15% more patients** at participating VAMCs than same period prior year (vs. 14% more than prior year during pre-sprint).
- During the **oncology** sprint, VHA saw **15% more patients** across all VAMCs than same period prior year (vs. 6% more than prior year during pre-sprint).

Wait time metrics show 0-12% reductions³ across specialties during sprint period compared to same period prior year

1. Based on PC balanced scorecard prepared on the week of 12/11/23 by IVC and SC balanced scorecards prepared on the week of 12/18/23 by IVC. Average percent reduction is based on the latest reported week vs. baseline week per balanced scorecards. | 2. Filtered for VAMCs participating in Sprint for the indicated specialty, as listed in the Specialty Care Site Selected Specialties file provided by OHT, except for Primary Care and Hem / Onc where all VAMCs participated in Sprint per IVC. | 3. Access Cube, retrieved from [Pyramid](#) > Public Contents > IVC Public > Performance Management > Access Sprint > AccessCube_byApptDt. Data accessed on 1/3/2024. | 4. Based on data between baseline week and latest reported week for each specialty. Per IVC, baseline is week of 10/22/23 for primary care and week of 10/29/23 for all other specialties. Latest reported week used is week of 12/11/23 for primary care and week of 12/18/23 for all other specialties.

Contents

Background context

Current state in access and community care across VHA

VHA access sprints

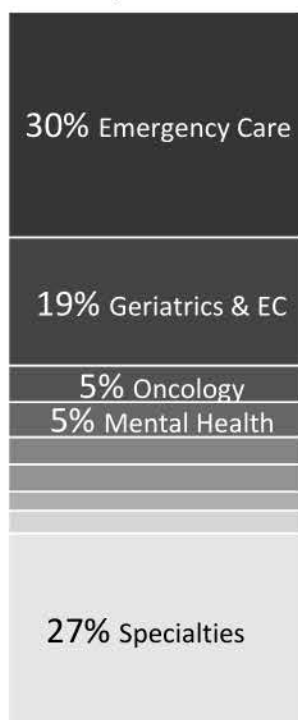
Other VHA strategies to expand access and address community care spend

Community care spending trends remain a focus, but the strategic goal is to provide Veterans access to the soonest and best care

PRELIMINARY – FOR DISCUSSION

VHA remains focused on ongoing efforts to address community care spending and improve Veteran access to care while **exploring regulatory, technology, infrastructure, workforce, and process improvements** to further improve Veteran access to care

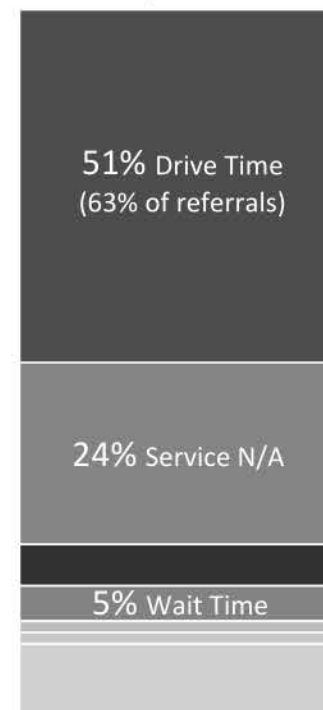
\$26.1B



- VHA Payment Reform (VHA as secondary payer for non-service connected; up to 1.73B in cost avoidance)
- Tele Emergency Care (44.6M to 88.2M in cost savings w/ 38.5M in TEC costs; 6.1M to 49.7M in VHA savings)
- Nurse Triage Line
- Evaluate ED Transfer Protocols
- Home Health Aide Model; Respite Homecare Model
- Workforce and Facility Expansion, where warranted
- National TeleOncology
- Mental Health Workforce Expansion (+140M)
- Anywhere to Anywhere Tele Mental Health
- Peer-to-Peer Solutions
- Referral Coordination Initiative (focus on 23 medical and surgical specialties that account for 6.09B; 128M to 510M in cost avoidance)
- E-Consults/Virtual Care Capacity for Specialties



\$18.2



FY23

- Access Standards (regulatory analysis in progress)
 - Telehealth (include availability of telehealth appointments; up to 104M in cost avoidance)
 - Drive time (community care wait time is shorter than VHA wait time; up to 424M in cost avoidance)
- Clinical Resource Hubs (telehealth and in-person visits)
- Virtual Care Capacity and Telehealth Utilization
- Mobile Clinics and Temporary Clinic Locations
- Infrastructure Strategy (address space needs, renovate existing facilities, shared spaces with DoD/commercial)
- Integrated Critical Staffing Program (clinical and non-clinical staffing support until new hires are onboarded)
- Artificial Intelligence Tools (e.g. ambient transcription, AI-mediated non-VA medical records processing, etc.)
- Clinic Practice Management Model
- Access Sprints (more to follow)

1. Actual spending based on the FY2023 service date
2. Emergency care includes costs associated with inpatient stays resulting from an emergency department visit. ~82% of emergency care spending is inpatient care.

VHA Payment Reform Proposal: 1.73B in Potential Cost Avoidance

Proposal: Adjustment to current payment policy where a Veteran's other health insurance would serve as the primary payer for nonservice-connected community emergency care and associated inpatient hospital claims and VA would cover any additional out-of-pocket costs to negate financial impact on Veterans while appropriately aligning discretionary and mandatory spending

17.4020(c) regulation change (prudent lay-person, provider networks, notification processes, and reimbursement rates) simplified the process of approving and paying for VA-purchased emergency care

VHA Payment Reform Proposal: GOALS

Desired Outcomes for Veteran

- Veterans trust that when they experience an emergency, they can seek care at the nearest emergency care facility able to provide treatment
- Veterans have the assurance that VA is working to coordinate their care and help facilitate a seamless care experience after an emergency
- Veterans should continue to access ED services without an increase in their out-of-pocket costs

Desired Outcomes for VA

- Veteran is provided timely, effective emergency care
- Relationships with community providers are strengthened
- VA is notified when Veteran self-presents to community ED for purposes of care coordination
- VA is primary payor for service-connected conditions and pays 100% of Medicare
- VA becomes secondary payor for EC associated inpatient for non-service-connected conditions

Desired Outcomes for Community ER/Provider

- Provider can coordinate care and transfers with the local VA
- Provider has industry standard method to report emergency services
- Provider receives timely payment, consistent with VA payment policy associated with Medicare

Desired Outcomes for Federal Government

- Better federal financial stewardship by moving a growing sum of discretionary funding into a mandatory spending category
- Enabling more-effective use of discretionary funds across government

VHA Payment Reform Proposal:

Proposal: Adjustment to current payment policy where a Veteran's other health insurance would serve as the primary payer for nonservice-connected community emergency care and associated inpatient hospital claims and VA would cover any additional out-of-pocket costs to negate financial impact on Veterans while appropriately aligning discretionary and mandatory spending

	NSC Age 64 and Under	NSC Age 65 and Over
FY 2022 VA Emergency Expense Subject To Cost Shifting for NSC	\$539,127,639	\$1,569,046,841
VHA's Payer Responsibilities (retained)	\$246,803,466	\$129,634,616
Cost Shift to Other Payer	\$292,324,172	1,439,412,225.12
Cost Shift By OHI		
Medicaid	\$119,120,991	--
Medicare Total	\$35,745,616	--
Medicare FFS	--	\$948,873,381
Medicare Advantage	--	\$511,536,621
Other Government (Tricare, others)	\$57,088,866	--
Employer Sponsored	\$243,788,320	--
Individual (ACA)	\$36,636,430	--

1. Figures shown are for Non-Service Connected Veterans only, with potential additional cost shifts for service connected Veterans getting treatment for non service-connected conditions not reflected here.
2. Calculating the cost shift resulted in variances in payment from the OHI (i.e.- some OHI may pay different rates).
3. 54% of Veterans use their OHI as primary, not billing VA as secondary. With the policy change, it is anticipated that some percentage may begin billing because copayments, coinsurance, and deductibles would be covered.

VHA Payment Reform Proposal:

39 of 54

PRELIMINARY – FOR DISCUSSION

Proposal: Adjustment to current payment policy where a Veteran's other health insurance would serve as the primary payer for nonservice-connected community emergency care and associated inpatient hospital claims and VA would cover any additional out-of-pocket costs to negate financial impact on Veterans while appropriately aligning discretionary and mandatory spending

VHA Payment Reform Proposal: RISKS

Labor & manpower necessary for VA to process 1725 & 1728 claims if shifted back from 1703

- Prior to 2019, it was time and manpower intensive for VA employees to receive these claims, process them, or pass them back to providers to bill OHI
- This was the primary driver of a major claims backlog & was not amenable to automation
- Systems are in place to automate some of these processes and the CAEC's proactive claims reviews has an impact

Inability for VA to repatriate Veterans back into VA care

- Claims are submitted after the episode of care
- Lack of repatriation may impact VA educational mission and continue fractured Veteran care
- There are currently multiple programs under way addressing this issue, including CO-ED, CC&ICM, PACT, TeleHealth, etc.

Abrasion with CCN providers

- Currently, CCN providers are pleased that VA has become the primary payer because we reliably & timely pay 100% of Medicare with simplified claims management
- Proposing to use 100% of Medicare under 1725 for all (regardless of network)
- Early engagement and training to accommodate the change in claims processing

Modifications requirements for current Third-Party Administrator contracts

- Contract currently states when VA is timely notified, and other applicable criteria are met, VA will provide payment using the 72-hour notification authority
- Early outreach and engagement with TPA for proactive communications


Recent Wolfe v. McDonough court decision (3/17/2022)

- VA appeal of Wolfe court decision recently was decided in VA's favor
- In the years of litigation related to this case, VA actively fought against the notion that VA was required to pay copay, cost shares or deductibles

A legislative adjustment is necessary in order to avoid Veterans receiving bills from their OHI for copayments and deductibles. Proactive partnerships with key stakeholders will be implemented to enable these legislative adjustments

Tele Emergency Care:

Proposal: Implement Tele-EC at each VISN intended to reduce low value ED visits (VA & non-VA), maintain integrity of Veterans' care in VHA, increase access to emergency care resources for Veterans, and improve Veteran convenience and experience in seeking EC



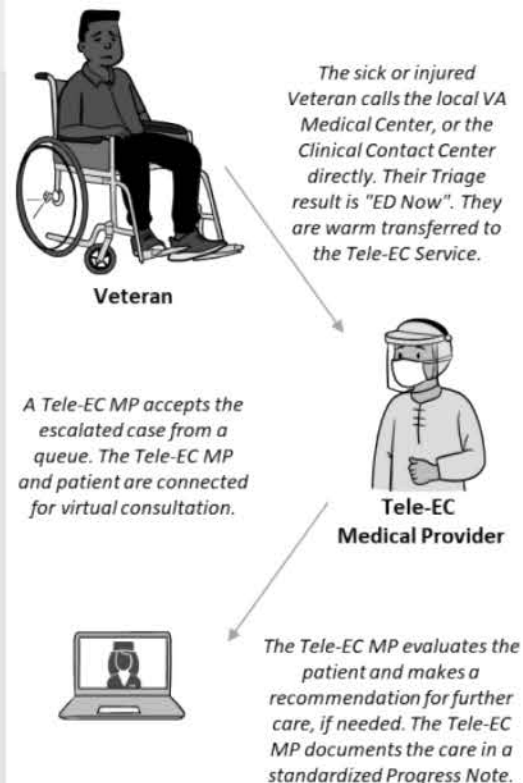
Service Overview

Who provides this service?

Emergency Medical Providers (MP) and Emergency Registered Nurses (RN)

What function does it provide?

- Veterans triaged through the Clinical Contact Center (CCC) as needing care within 0-2 hours ("ED Now") can be **virtually evaluated** by a Tele-Emergency Care RN/Provider team to **reduce low-value F2F ED visits**
- Opportunity for Veterans to access the service through channels outside of CCC (VA Health Chat, rural Urgent Care clinics, etc.)
- Extremely **convenient** for Veterans to access
- Electronic Tracking Queue with Performance Dashboards
- Generally, **50%** of Veterans who would have been recommended to go to the ED can have their care **resolved** though Tele-EC





Why is this service beneficial?



- Improves Access to Care for Veterans**
 - Enables Veterans who are triaged as needing care in 0-2 hours or who decline to call 911 to be quickly connected to a Tele-EC Clinician for further immediate care.
 - Care is provided on an immediate, on-demand unscheduled basis
- Enables Veterans to receive the right care at the right time at the right place**
 - Reduces low-value F2F VA & non-VA ED visits

COST ANALYSIS:

17% Absolute Reduction in CC ED Visits

\$250 CC ED Savings per TEC Visit

Li, K et al. Standard nurse phone triage vs Tele-Emergency Care pilot on Veteran use of in-person acute care: An instrumental variable analysis. *Acad Emerg Med.* (2023).

Projected Savings per Veteran (Li study):
\$248 to \$490

Total VHA Annual Savings:
\$44.6 million to \$88.2 million

X

—

Estimated VHA Annual Volume:
180,000

Annual VHA TEC Costs:
\$38.5 million

=

=

Total VHA Annual Savings:
\$44.6 million to \$88.2 million

Annual VHA Savings:
\$6.1 million to \$49.7 million

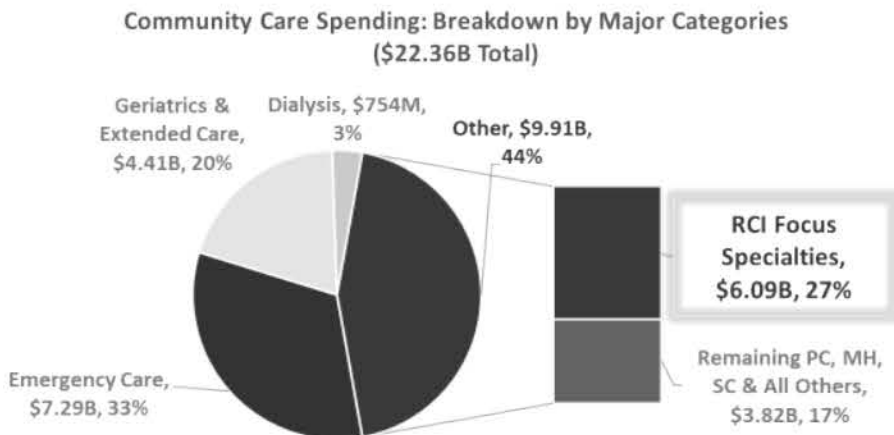
Referral Coordination Initiative:

Centralized RCI Model (Clinical and Administrative Teams): Teams that can present the Veteran with options for care, in order to retain more care within the VA; expand options for care delivery within the VA by offering virtual appointment options and partnering with other VAMCs (smaller VA facilities in the 1A/1B VAMCs' markets can serve as additional sources of referrals for retention)

- Conducting a full assessment of the RCI program and operating models with the intent of pursuing a more directive/standardized approach across higher-complexity facilities
- Evaluating the nurse-first model, staffing model, standardized triage tools, and incorporating RCI principles and processes into Oracle Cerner Millennium EHRM

SCOPE:

- Focusing on critical specialties for increased retention
 - 14 medical and 9 surgical, accounted for \$6.09B in FY22
 - Excludes emergency care, GEC, and dialysis
 - Spending on pace to grow 15% in FY23



MODELING RETENTION RATES:

- When Veterans are offered the best available VA option, often they will elect to stay within VA for their care. If they are not offered a VA option, they will always access care in the community.
- Retention Rate: Measuring VA's ability to retain referrals for community care eligible Veterans who chose to stay with the VA
- Dedicated RCTs can have a significant impact on increasing retention rates and consequently community care cost avoidance

BENEFITS:

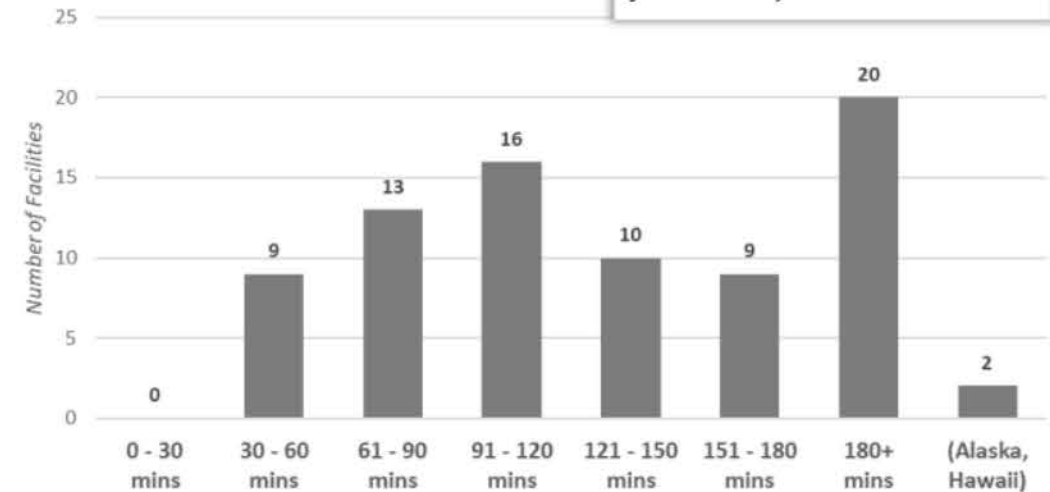
- Transitions referral scheduling from multiple clinical employees to Referral Coordination Teams Empowers Veterans to understand all their health care options
- Increases Veteran satisfaction; more effective care coordination
- Optimizes workload; increase provider capacity
- Promotes Veteran-driven care decisions and value-based use
- Improves access to care and optimizes the use of face-to-face care, E-consults, and telehealth services across VAMCs
- Investing in a RCT can increase access and reduce community care expenditures by maximizing VA resources

Referral Coordination Initiative:

Retention Opportunities From Lower Complexity Facilities (79 Lvl 1C, 2, 3 Facilities)

- 79 lower complexity VAMCs
 - Excluding 41 facilities located 120+mins from a 1A/1B facility**
- Total spending across selected 23 specialties (38 facilities) = \$1.52B (FY22)
- Referral Volume (23 Specialties) (38 facilities) (FY23 Annualized):
 - 662K Community Care Referrals
 - 615K Direct Care Referrals
 - 1.28M Total Referrals
- Additional FTEE needs & estimated investments to handle the 2.7M consults:
 - 127 - 255 Clinical FTEs (1.28M referrals)**
 - FTEE Costs (Salary + Benefits): \$18.5M – \$37.0M
 - 127 - 255 Administrative FTEs (1.28M referrals)**
 - FTEE Costs (Salary + Benefits): \$8.0M – \$16.1M

Traveling Time To Closest Lvl 1A / 1B
(From Lvl 1C, 2, & 3 Facilities) (Count)



****Important:** Actual drive time for Veterans from residence to a 1A/1B facility will differ. This is used as a approximate indicator for this analysis.

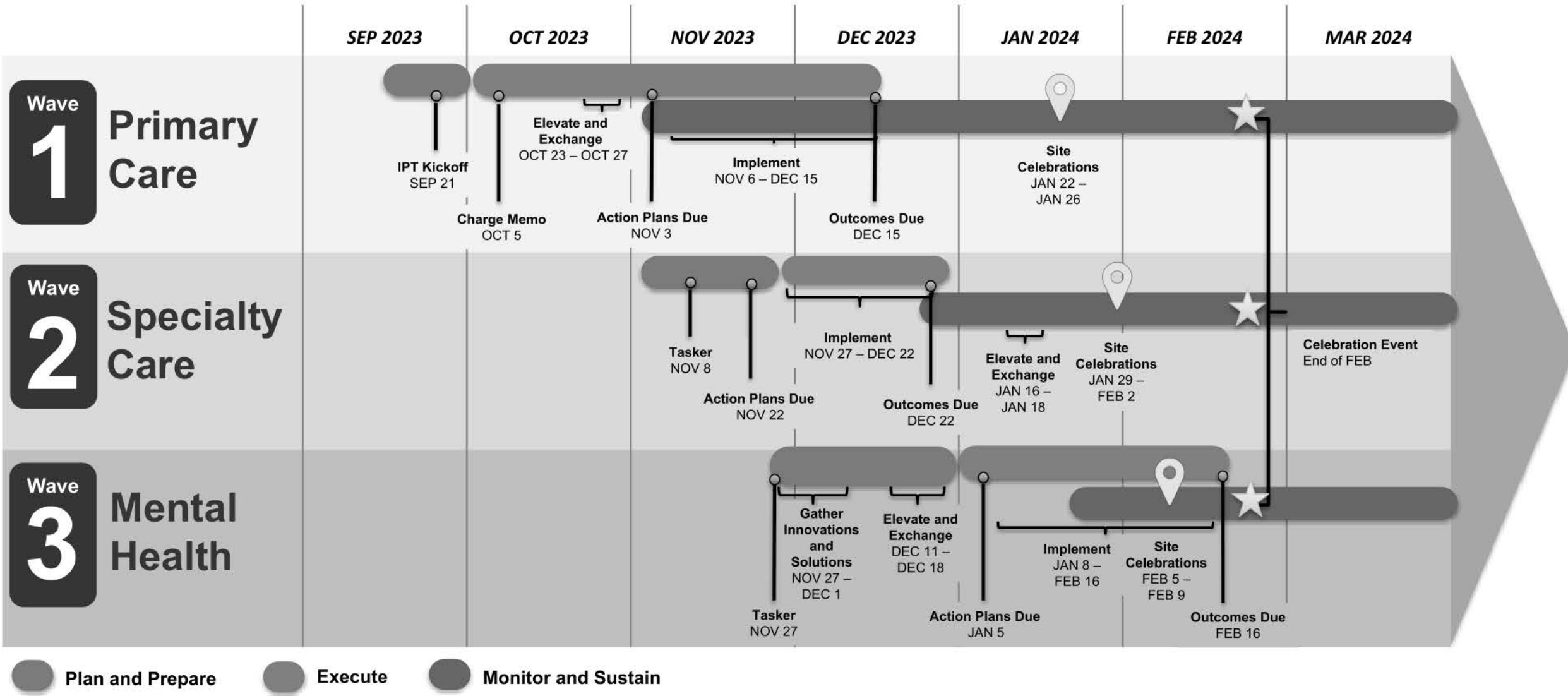
Table 1. Modeling varying levels of increases in retention rates at all facilities & resulting impact on community care spending

FY22 Spending:	\$4.07B: \$2.55B (60 1As and \$1Bs) + \$1.52B (38 1Cs, 2s and 3)		
Retention Rate Increases	Increase in Retention Rate Over Baseline: 10%	Increase in Retention Rate Over Baseline: 20%	Increase in Retention Rate Over Baseline: 30%
Community Care Cost Avoidance	\$407M	\$813B	\$1.22B
RCT FTEE Costs	\$118.9M – \$237.7M		

*Source: Cusick, A., Gronek, J., Gorman, M. *et al.* Michigan Market Referral Coordination Initiative: a Regional Market Approach to VA Specialty Care. *J GEN INTERN MED* 38 (Suppl 3), 871–877 (2023). <https://doi.org/10.1007/s11606-023-08112-8>

Appendix

VHA Access Sprint Timeline



Example tools to address community care spend due to wait time

Decision support tools that can help propose interventions

XX Details follow

A Opportunities to increase number of cFTEs

- A1 Review labor mapping & LEAF exceptions to determine potential to increase cFTEs
- A2 Hire additional care team providers to meet Veteran demand for care
- A3 Utilize telehealth, and Clinical Resource Hubs to expand capacity
- A4 Create opportunities for provider float pools (e.g., locums, new usage of employed providers)

B Opportunities to improve provider productivity (panel size for primary care)

- B5 Ensure bookability is at or above 80% (e.g., expand clinic hours to meet OP cFTE)
- B6 Increase panel size to VHA standard (e.g., up to 105% of modeled panel capacity determined by PCMM)
- B7 Review slot lengths to ensure they match specialty standard
- B8 Assess utilization of new patient vs. follow-up slots and convert excess slots to new patient
- B9 Leverage automated appointment reminders to reduce patient no-shows
- B10 Review provider cancellations and ensure existing policies are being followed
- B11 Consider hiring additional clinical support staff to match VHA standards and increase panel size capacity
- B12 Explore use of scribes or virtual scribes
- B13 Assess scheduling process (e.g., scheduler capacity)
- B14 Assess physical space constraints, expand physical capacity if needed, and optimize tele-work to preserve clinic space
- B15 Reduce administrative burden for providers (e.g., optimize required documentation)

Enablers such as best practice sharing, compensation models, real-time dashboards, continuous idea generation, clear governance and performance management could help further improve wait times

Examples of ongoing initiatives that support goal

- Leverage Consult Toolbox to capture Veteran preferences
- Increase telehealth utilization across network (including telemental health clinical resource sharing), and Veteran Trust score surrounding comfort with telehealth services
- Evaluate LEAF exception policies and collaborate with MCAO for labor mapping
- Establish IVC operating model that responds to facility timeliness concerns

Preliminary, non exhaustive list of initiatives to be refined with program offices

Example tools to address community care spend due to drive time

Facilities will be provided with decision support tools that can help propose interventions

A	Opportunities to increase use of telehealth	A1	Increase telehealth options locally (e.g. increase use of CRH's, expand ATLAS program)
		A2	Provide training to schedulers and providers to encourage use of virtual care resources
B	Opportunities to explore use of mobile clinics and/or temporary locations	B3	Explore potential community sites to see Veterans (e.g. library, church)
		B4	Incentivize providers locally to develop satellite care services (e.g., pay for additional clinic hours at mobile sites)
		B5	Set up temporary mobile clinics to provide additional services to Veterans
C	Other opportunities to expand services	C6	Collaborate with other VISNs to sharing resources, as needed
		C7	Re-evaluate partnerships with local service providers (e.g. partner with regional hospital to rent room space)
		C8	Consider offering additional wraparound services for non-emergency care (e.g. stipends for transportation services, childcare, lodging)

Enablers such as best practice sharing, compensation models, real-time dashboards, continuous idea generation, clear governance and performance management could help further improve drive times

Examples of ongoing initiatives that support goal

- Increase telehealth utilization across network (including telemental health clinical resource sharing), and Veteran Trust score surrounding comfort with telehealth services
- Continue integrated scheduling system rollout so veterans can more easily move back and forth between in-system and community care
- Increase use of Referral Coordination Initiative

Preliminary, non exhaustive list of initiatives to be refined with program offices

Example tools to address community care spend due to service not available

Facilities will be provided with decision support tools that can help propose interventions

- | | |
|--|--|
| A Opportunities to evaluate unmet need and provide additional services | <div> A1 Review existing service contracts and evaluate possible change in terms (e.g. contract with home health providers) </div> <div> A2 Pilot new program in geographic areas and/or specialty areas with highest need </div> <div> A3 Align on strategic goal for whether VA should offer service directly </div> |
| B Opportunities to leverage existing VHA services more broadly | <div> B4 Redeploy existing cFTEs to areas of highest need </div> <div> B5 Hire new cFTEs, and consider opportunities to share across VAMCs and/or VISNs </div> <div> <p>—————→ <i>Consider drive time levers for additional ideas</i></p> </div> |
| C Other opportunities to expand services | <div> C6 Consider opportunities to expand telehealth services and form partnerships between specialty and primary care providers </div> <div> C7 Partner with community providers to hire incremental effort as demand increases </div> |

Enablers such as best practice sharing, compensation models, real-time dashboards, continuous idea generation, clear governance and performance management could help further improve service limitations

Examples of ongoing initiatives that support goal

- Utilize Clinical Resource Hubs to expand capacity
- Leverage Integrated Clinical Staffing Program
- Hire additional care providers to respond to increased demand
- Educate Veterans on Access to Care Website so they can better identify in-network services

Preliminary, non exhaustive list of initiatives to be refined with program offices

National TeleOncology (NTO)

PRELIMINARY – FOR DISCUSSION

National TeleOncology (NTO): Provides world-class, sub-specialized hematology/oncology care.

- Provides care, in partnership with 79 VAMCs, but will reach 100 by end of CY25
- Comprehensive oncology care at 10 VAMCs
- 12,945 Unique Veterans
- 52,919 patient encounters completed since 2020
- 47% of Veterans reside in rural areas
- 25+ clinical teams providing comprehensive care including treatment and continuity of care
- More than 1,000 new treatment regimens initiated
- Second opinions, e-consults, chart reviews, & tumor boards

NTO Services:

- Clinical Cancer Genetics Service (CCGS)
- Breast and GYN System of Excellence (BGSOE)
- Close to Me Infusion (CTM)
- Virtual Tumor Boards

Planning Phase: In FY 2024, we plan to increase access to care by beginning to implement combined provider clinic and infusion capabilities into higher volume CBOCs. Using the CTM infusion model, an APP, and support staff, we expect to provide full-service VA care to between 50% and 70% of Veterans needing hem/onc. services. This plan is in development.

For more information, visit: cancer.va.gov and <https://dvagov.sharepoint.com/sites/vhanto>

Close to Me Infusion Services

Reduces travel time for Veterans, improves VA care continuity, and increases access to Veteran-centric care:

- Available at 20 Community Based Outpatient Clinics (CBOCs)
- 20 additional CBOCs scheduled to open services by end of FY 24
- 407 Veterans served, with 1,518 encounters through December 15, 2023
- Over \$1 million dollars in medication cost avoidance
- Average savings per Veteran of 415 miles & 403 minutes driving
- 51% of Veterans receiving care are rural

Goal: Expand to 80 CBOCs and treat 4,000 Veterans by the end of FY25

Virtual Tumor Boards

Unites VA health care professionals across the country for guided discussions around cancer treatment plans:

- Over 100 Virtual Tumor Board (VTB) sessions conducted since March 2022
- Over 200+ Veteran patients served via VTBs
- 49 facilities across the country and Puerto Rico participated in VTBs

Goal: Incorporate TelePathology into VTBs by end of calendar year 2024

Clinical Cancer Genetics Service

Allows VA to support genetic counseling services system-wide by end of CY2024:

- Over 1,360 patients seen since launched in February 2023
- Reduced Veterans' wait times from ~ 9 months to ~ 2 weeks
- Allows expedited access to germline testing to Veterans with cancer
- Empowers family members with information for their own health

Goal: Provide access to care to all Veterans by the end of calendar year 2024 and reach 7,500 by the end of FY25

Breast and Gynecologic System of Excellence

Provides telehealth and e-consults to Veterans across the country:

- Piloting a patient-navigation program to provide personalized support and care coordination from diagnosis through survivorship/end-of-life
- 32% of patients are rural

Goal: Provide services nationwide.

Access Standards: 104M-210M and 424M-1.14B Potential Cost Avoidance

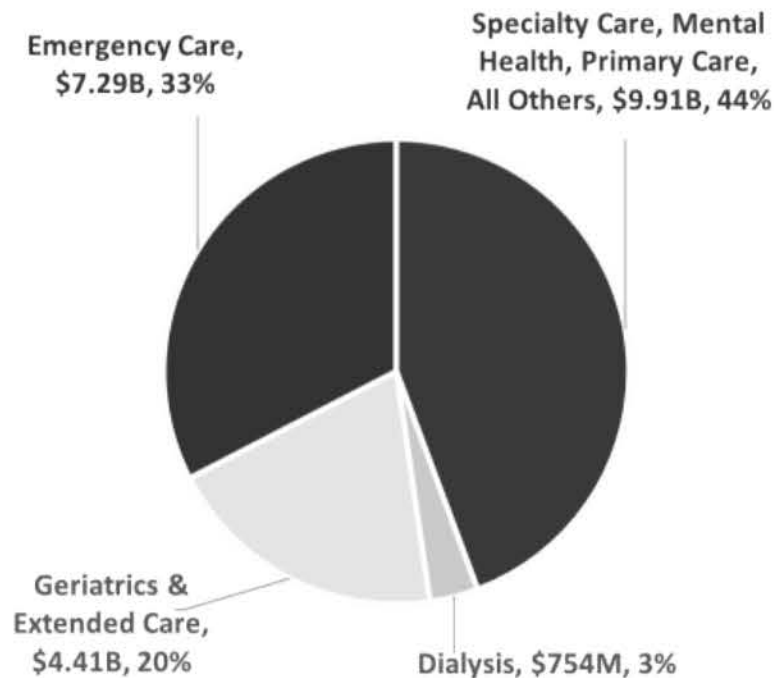
Proposal: Two modifications to the Designated Access Standards which impact Veterans Community Care Program (VCCP) eligibility

- **Telehealth Incorporation**: Include the availability of clinically appropriate telehealth appointments within the VA, in the determination of care in the community eligibility under the designated access standards when the Veteran consents to the telehealth appointment modality (104M to 210M Potential Cost Avoidance)
- **Drive Time Amendments**: Include in the determination of drive time eligibility, in cases where VA is unable to furnish care within the 30- or 60-minute average drive time standards, a requirement for the receiving community care provider to represent a shorter drive time as compared to the closest available comparable VA provider (424M to 1.14B Potential Cost Avoidance)

VHA is planning for two-stage rulemaking to ensure a transparent process with opportunity for public comment and feedback; VA goal is to publish the Final Rule by October 2024

Access Standards:

Community Care Spending: Breakdown by Major Categories (\$22.36B Total)



BENEFITS:

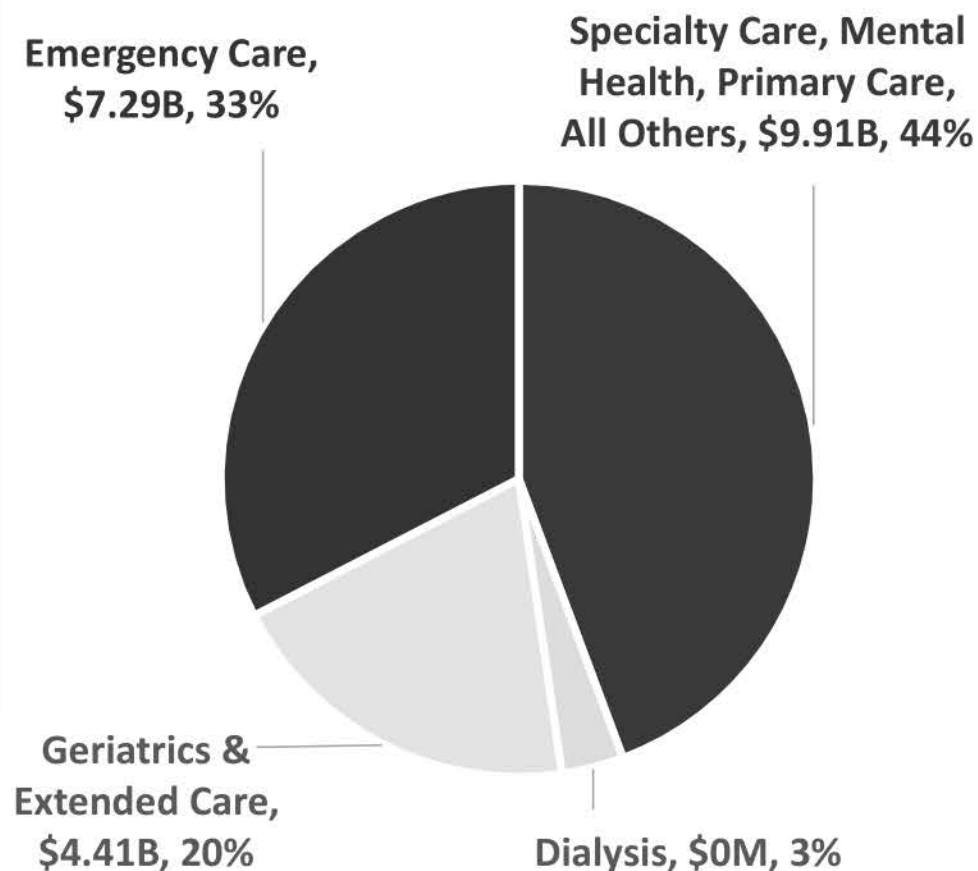
- Telehealth modifications will preserve Veterans' unilateral decision-making power on use of telehealth and will allow VA to more accurately reflect when VA is able to meet the designated access standards and provide timely, appropriate care
- Drive time changes will reduce instances where Veterans drive a greater distance to receive healthcare services from community care providers when comparable, timely VA services are available within the same or shorter drive distance
- Reduce unnecessary community care expenditures, while better utilizing existing VA capacity
- Shift balance of care in direction of VA, where outcomes for many care categories are better, hospitals are, on average, more highly rated, and Veteran trust is highest

RISKS:

- Reputational Risk: Drive-time modifications viewed as restricting Veteran choice and may reduce timely access to care
- Increased handling time for referrals: Additional steps to referrals, including conversations on TH and community care preferences (opt-in/out) and eligibility, comparisons of drive time to VA and VCCP facilities when DT is exceeded, and documentation for each
- Delays in the timeline could risk nullification of the proposed rulemaking via the Congressional Review Act
 - Regulation timeline is dependent on expedited reviews across VHA, VA, and OMB and prioritized implementation
 - High volume of public comments may delay the final rule drafting
- Potential for change fatigue and inconsistent implementation with potential interim or temporary solutions, particularly with significant future scheduling technology and process changes

Cost Avoidance Proposal: Summarizing The Potential

Community Care Spending (Veterans): Breakdown
by Major Categories (\$22.36B Total)



Emergency Care

1

Payment Reform

- **Up to \$1.73B**

4

Tele-EC

- **\$44.6M – \$88.2M**

Remaining Categories Specialty Care, Mental Health, Primary Care & Others

2

Access Standards

- **Regulatory Impact Analysis (In progress)**
- **Telehealth \$104M – \$210M**
- **Drive Time \$424M – \$1.14B**

3

Referral Coordination Initiative (RCI) Revamp

- **\$407M – \$1.22B**

Integrated Scheduling System



Clinical Capability Search Tool



External Provider Scheduling

Year 1 Rollout



Enterprise Scheduling Modernization: VHA and OIT are collaborating on an Enterprise Scheduling Modernization effort with the goal of delivering better scheduling systems and processes, thus improving access to care for Veterans.

- **Integrated Scheduling System:** A staff facing web-based application for scheduling Veteran appointments that ultimately consolidates functionality from multiple scheduling applications into a single enterprise scheduling solution.
- **Clinic Capacity Search Tool:** An enterprise solution providing the ability to surface all available appointments for requested service and modality across multiple facilities.
- **Clinic Configuration Manager:** A web-based software tool that provides a modern and easy-to-use platform for the clinic profile managers.

External Provider Scheduling: An enterprise scheduling solution (Software as a Service licenses of the Wellhive Platform) was acquired which achieves visibility and scheduling into External Provider scheduling appointment slots.

Analysis of Compile Claims Data: Percent of visits potentially able to be conducted virtually by specialty

Estimated % of potential VH visits [‡]	Specialty
70 – 75%	Behavioral Health
65 – 70%	Nutrition
40 – 45%	Sleep Medicine, Pharmacist
35 – 40%	Bariatrics, Cardiothoracic, Gastroenterology, Plastic Surgery
30 – 35%	Thoracic Surgery, Neurosurgery
25 – 30%	Family Medicine, General Surgery, Hospice and Palliative Care, Endocrinology, Internal Medicine
20 – 25%	Pain Medicine, Infectious Diseases, Trauma Surgery, Obstetrics, Dermatology, Rheumatology, Speech Pathology
15 – 20%	Pediatric Medicine, Orthopedics, Audiology, Sports Medicine, Geriatrics, Neurology, Nephrology, Physical Medicine, Pulmonology, Cardiology, Podiatry, Oncology
10 – 15%	Urgent Care, Urology, Otolaryngology, Hematology, Emergency Medicine, Oral Surgery
5 – 10%	Allergy & Immunology
0 – 5%	Ophthalmology, Optometry, Chiropractic, Dentistry, Radiology, Genetics

[‡] Based on “*bottom-up sizing methodology of virtual care delivery potential*”. Summary of the methodology is as follows:

- Individual CPTs are mapped against a clinically backed database of the probability of virtualization for each CPT
- The proportion of visits that could be virtualized is determined by through assessment of combinations of CPT and specialties

Source: Compile claims database with mapping of virtualizable CPT codes, 2022

Veterans Health Administration Overview

Honor America's Veterans by providing exceptional health care that improves their health and well-being

Ryung Suh

Chief of Staff, Veterans Health Administration (VHA)

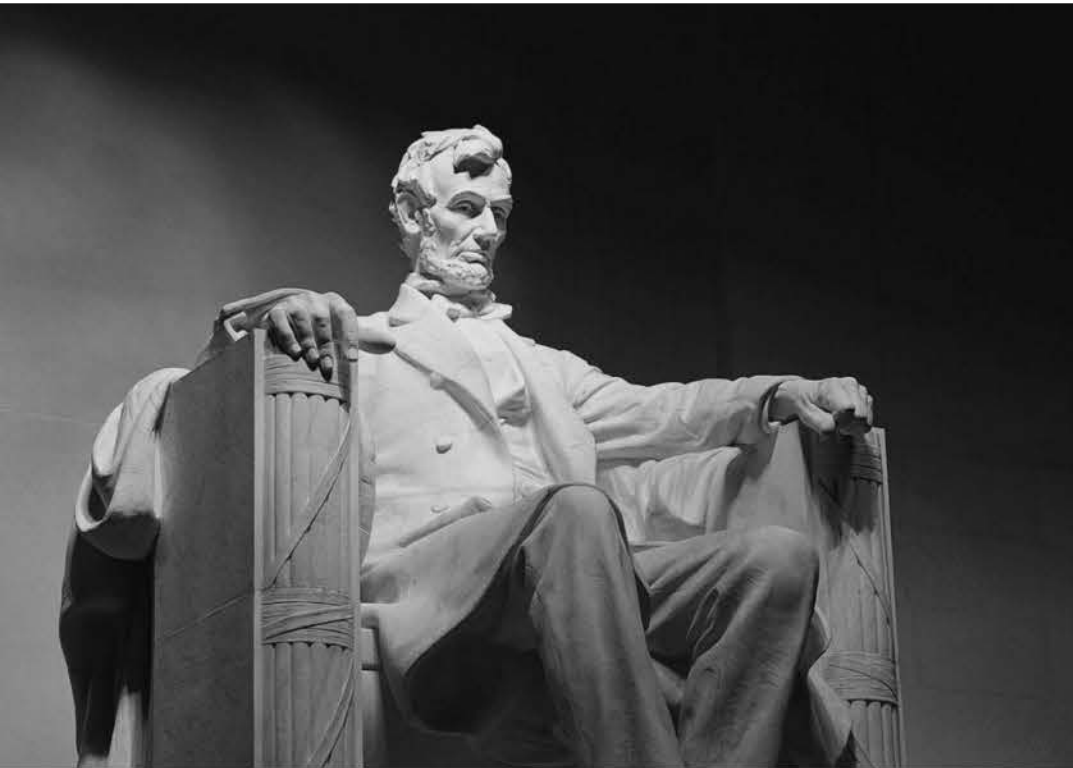
VA



**U.S. Department
of Veterans Affairs**

Our Mission & Values

To fulfill President Lincoln's promise to care for those who served in our nation's military and for their families, caregivers, and survivors.



Core Values

Integrity

Commitment

Advocacy

Respect

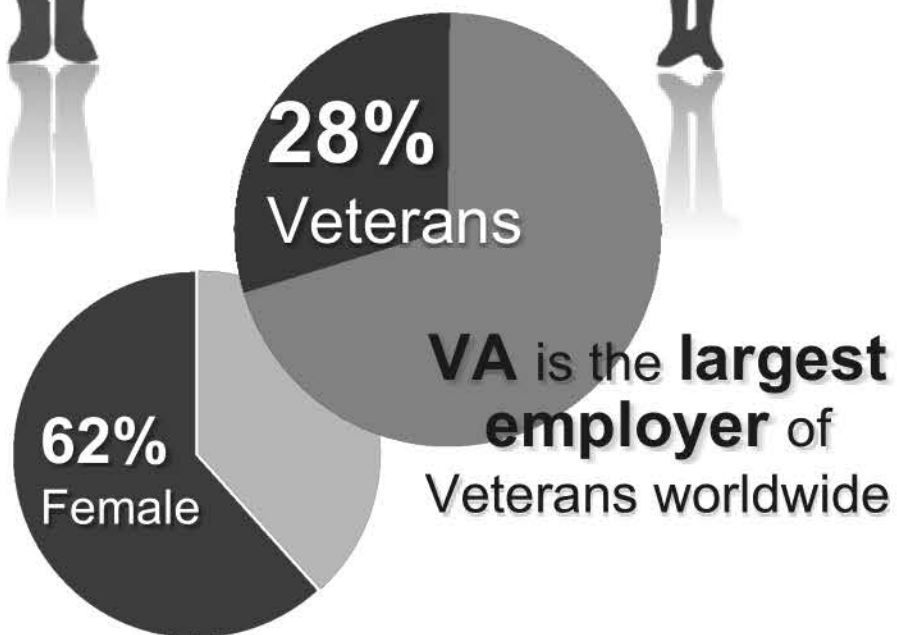
Excellence

3 of 14

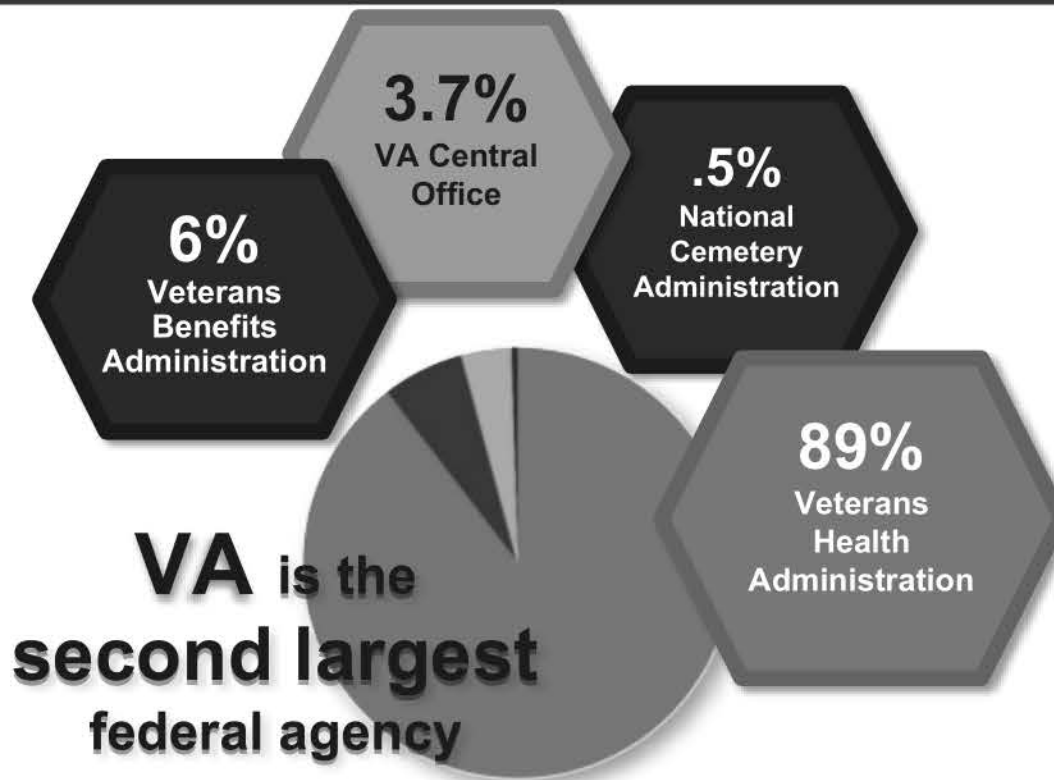
Who We Are



430K+
EMPLOYEES



VA is the largest employer of Veterans worldwide



**PROJECTED U.S.
VETERAN POPULATION
18.5 Mil | ion**

VA Administrations

Veterans Benefits Administration (VBA)



*Administers Benefits
(Compensation, Pension,
Veteran Readiness &
Employment, Education,
Home Loan Guaranty, and
Life Insurance)*

Veterans Health Administration (VHA)



*Provides World-Class
Healthcare, Research, and
Training*

National Cemetery Administration (NCA)



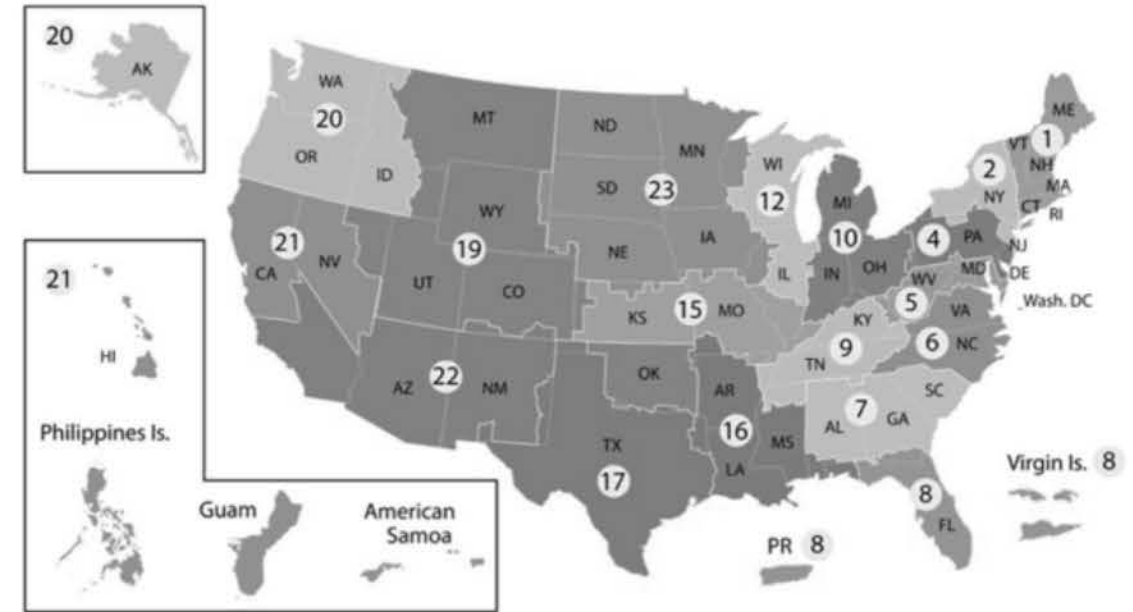
*Honors Veterans &
families with final resting
places & commemorates
their service and sacrifice*

VHA includes the largest healthcare delivery system in the United States

18 Veteran Integrated Service Networks

VISNs provide oversight, guidance and management of regional systems of care (1,328 health care facilities).

- **1,328** VA Healthcare Facilities including:
 - **173** VA Medical Centers (VAMCs)
 - **1,141** VA Outpatient Sites
 - **316** Vet Centers (Readjustment Counseling)
 - **135** Community Living Centers (Nursing Homes)
 - **116** Residential Rehabilitation Treatment Programs
 - **54** Mobile Clinics – each connected to a medical centers
-
- VHA has **400,000+** employees:
 - **25.2%** of which are Veterans
 - **62.5%** are clinical employees
 - **28,000+** physicians
 - **114,000+** nurses (CRNA, RN, LPN and NA)
 - VHA accounts for **~89%** of VA employees.




VHA provides Veterans with high quality care and a positive experience



67%

of VA medical centers included in the Overall Hospital Quality Star Ratings **received either 4 or 5 stars, compared to only 41% of non-VA hospitals¹**



10/10

VA facilities outperformed community hospitals on all 10 core patient satisfaction metrics in the April 2023 Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Star Ratings²



90%

of Veterans trust VA for their healthcare³

1. VA Press Release 7/26/2023: Majority of VA health care facilities receive 4 or 5 stars in CMS quality ratings, outperforming non-VA facilities | 2. VA Press Release 6/20/2023: VA hospitals outperform private sector in patient experience | 3. VA Press Release, 5/8/2023: Studies show VA health care is better than or equal to non-VA health care

VHA's Statutory Missions & FY 2022-2025 Long Range Plan



MAINTAIN TRUST	GOAL 1 <i>What We Are Aiming For</i>	Veterans choose VHA as their health care provider and coordinator, built on trusted, long-term relationships	
	Objectives	1.1 Understand and employ what matters most to the Veteran and their care team. 1.2 Increase communications that promote the use of learning tools and the understanding of available resources to Veterans, employees and stakeholders. 1.3 Increase national recognition of VHA as a provider of high-quality health care services.	
	Strategies <i>How We Will Get There</i>	1.1.1 Enhance customer satisfaction and experience by providing high-quality care, ease of access and coordination. 1.2.1 Improve outcomes and knowledge sharing by employing bi-directional communication with Veterans, their families and caregivers. 1.3.1 Leverage media to spread VA's specialized knowledge and leadership in clinical outcomes within the health care landscape.	
OPTIMIZE ACCESS & IMPROVE OUTCOMES	GOAL 2 <i>What We Are Aiming For</i>	VHA delivers high-quality, accessible and integrated health care	
	Objectives	2.1 Enhance Veterans' care by building an integrated delivery network with internal and external partners. 2.2 Provide greater choice for care across the VA system at facilities and through virtual care, community care and collaborative opportunities. 2.3 Tailor care to serve every Veteran, ensuring equity for those who are underserved. 2.4 Increase access to and use of a broad spectrum of services that encourage and support lifelong whole health and wellness.	
	Strategies <i>How We Will Get There</i>	2.1.1 Foster information exchange and organizational alignment with government and non-government partners to establish a high-performing integrated health care delivery network. 2.2.1 Expand virtual care, giving Veterans the choice to receive appropriate care at home and in the community. 2.3.1 Synergize outcomes for Veterans' mental health, suicide prevention, homeless and aging Veterans. 2.3.2 Offer comprehensive women's health services. 2.4.1 Empower and equip Veterans and employees to take charge of their health and well-being by utilizing VHA to live life to the fullest. 2.4.2 Continue to improve the support, transparency and investment of caregivers and survivors of Veterans.	
LEARN AND TEACH	GOAL 3 <i>What We Are Aiming For</i>	VHA maximizes performance through shared ownership and is on the forefront of innovation	
	Objectives	3.1 Fully transform VHA into a High Reliability Organization by deepening a culture of shared ownership, accountability, stewardship and collaboration. 3.2 Integrate and leverage best practices and technological advances in health care into clinical practice and health professions education. 3.3 Promote VHA as an authoritative thought leader in health care delivery and training by conducting clinical research and providing health care-related data that benefits Veterans and the general public.	
	Strategies <i>How We Will Get There</i>	3.1.1 Cultivate a positive climate and foster a safety and improvement culture with movement towards zero harm. 3.1.2 Evolve from a holding company to an operating company model. 3.2.1 Provide tools, resources and experiences in support of employees in collaboration with the REBOOT task force. 3.2.2 Drive ongoing improvement and innovation in health care quality, education, training and advancements in scientific research. 3.3.1 Innovate through shared ownership, improved outcomes and cultural transformation. 3.3.2 Set the industry benchmark in health care for Veterans' their families' and caregivers' resiliency, outcomes and quality of life.	
MODERNIZE SYSTEMS & ENHANCE READINESS	GOAL 4 <i>What We Are Aiming For</i>	VHA optimizes assets across the enterprise	
	Objectives	4.1 Modernize and enhance business and health information systems and enterprise data. 4.2 Evolve from a holding company to an operating company model. 4.3 Optimize the use of physical resources and infrastructure modernization efforts. 4.4 Provide comprehensive and robust human resource (HR) investments to acquire and develop diverse talent and engage employees from onboarding to retirement. 4.5 Improve coordination, communication and transparency across VHA.	
	Strategies <i>How We Will Get There</i>	4.1.1 Modernize electronic health records. 4.2.1 Transform the supply chain and management of capital asset investments. 4.3.1 Advance the alignment of health care infrastructure needs through the appropriate implementation of market assessment recommendations. 4.4.1 Streamline and standardize HR processes for recruitment, increased retention and competitive employee incentives, development and recognition. 4.5.1 Refine the governance structure and cooperative work across Program Offices and VHA's.	

VHA has 4 Statutory Missions that support and honor America's Veterans

1

Care Delivery

Develop, maintain, and operate a national health care delivery system for eligible Veterans

**2****3****4**

9 million enrolled Veterans

VHA is the largest integrated health care system in the United States, providing care at 1,328 facilities to more than 9 million Veterans enrolled in the VA health care system.

- VHA completed more than **88 million** outpatient visits.
- **2.58 million** Veterans were authorized by VA to receive care in local communities.
- **286,907** Veterans, service members (including members of the National Guard and Reserves) and their families received readjustment counseling at VA's 300 Vet Centers, totaling nearly **1.37 million** visits and outreach contacts.
- More than **2.3 million** Veterans received telehealth.

VHA has 4 Statutory Missions that support and honor America's Veterans

**2**

Education

Administer a program of education and training for health care personnel

**4**

Leading GME provider

VHA is one of the nation's largest providers of graduate medical education, and a major contributor to medical and scientific research.

- About **70%** of all U.S. physicians have received at least some of their training at VA health care facilities.
- VHA has partnerships with over **1,400** institutions across **7,700** training programs in every U.S. state.
- Annually, VA provides training for about **118,000** trainees.

VHA has 4 Statutory Missions that support and honor America's Veterans



\$800 million intramural research

VHA manages an over \$800 million congressional research appropriation to fund intramural research at VA facilities across the country.

- VA has had **three** Nobel prize-winners, along with **seven** Lasker awards, and numerous other national and international honors.
- In FY 2022, more than **3,600** VA researchers worked on over **7,200** projects, with a total research budget (internal and external sources) of **\$2.26 billion**.
- Highlight: Quality Enhancement Research Initiative (QUERI) has over **200** VA-employed scientists partner with VA providers, leaders, and Veterans to improve implementation, quality improvement, and evaluation strategies.
- Highlight: Million Veteran Program (MVP) is one the world's largest genomic research programs.

VHA has 4 Statutory Missions that support and honor America's Veterans



2,000+ staff deployed during pandemic

VHA's Office of Emergency Management coordinates VHA's internal comprehensive emergency management program and provides support to the Department of Health & Human Services.

- VHA's disaster resilience and response capabilities include:
 - Disaster Emergency Medical Personnel System (DEMPS), which deploys volunteer clinical and non-clinical staff for both internal continuity of operations and "Fourth Mission" external support.
 - Clinical Deployment Teams provide **360** permanent, clinical staff dedicated to the continuity of Veteran healthcare and support of communities in times of crisis.
 - Mobile ICUs and Mobile Medical Surgical Units.
- VHA support to the nation has included:
 - Over **2,000** staff deployed to community hospitals and nursing homes to provide direct support during the COVID-19 pandemic.
 - Deployment of mobile assets and staff support for emergency weather events, such as hurricanes and wildfires.

VHA Health Care Priorities and VHA Strategic Enablers



Hire **faster**
and more
competitively



Connect Veterans
to the **soonest**
and **best** care



Serve Veterans
with **toxic**
exposures



Accelerate our
journey to High
Reliability



Support Veterans'
whole health,
their **caregivers**,
and **survivors**



Prevent Veteran
suicide

Partner with
VSOs, states,
advocates, and
interagency

**Retain, invest in, and
support** our people.

Scale **best
practices** and
drive **innovation**

Modernize
our facilities
into the **future**

Drive equity for women,
minority and LGBTQ+ Veterans

Improve our
technology
systems and
workflows



VHA Key Leadership



Mark T. Upton, MD
Deputy to the Deputy Under
Secretary for
Health
10



Steven Lieberman
MD, MBA
Deputy Under Secretary for
Health (DUSH)
10



Shereef Elnahal
MD, MBA
Under Secretary for
Health (USH)
10



Ryung Suh, MD
Chief of Staff
10B



Krystal M. Toles
Deputy Chief of Staff
10B



Laura Duke, MPP
Chief Financial Officer
104



Charles C. Hume, FACHE
Chief Informatics Officer
105



Jessica Bonjorni,
MBA, PMP, SPHR
Chief Human Capital
Management
106



Valerie Mattison Brown,
MS, MPA
Chief Strategy Officer
108



Maura Catano, MBA
Executive Director
10T



Ann Doran
MHSM, MPA
Executive Director
10PADV



Michael Fisher, MSW
Chief Readjustment
Counseling Officer
10RCS



Alan J. Hirshberg
MD, MPH, FACEP
Acting VHA Associate Deputy
Under Secretary
for Health for Oversight, Risk
and Ethics



Sally G. Haskell, MD
Acting Chief Officer
10W



Erica M. Scavella,
MD, FACP, FACHE
Assistant Under Secretary
for Health for
Clinical Services
11



M. Christopher Saslo, DNS,
ARNP-BC, FAANP
Assistant Under Secretary
for Health for Patient
Care Services/Chief Nursing
Officer
12



Carolyn Clancy, MD
Assistant Under Secretary
for Health for Discovery, Education
and Affiliate Networks
14



RimaAnn O. Nelson
Assistant Under
Secretary for Health
for Operations
15



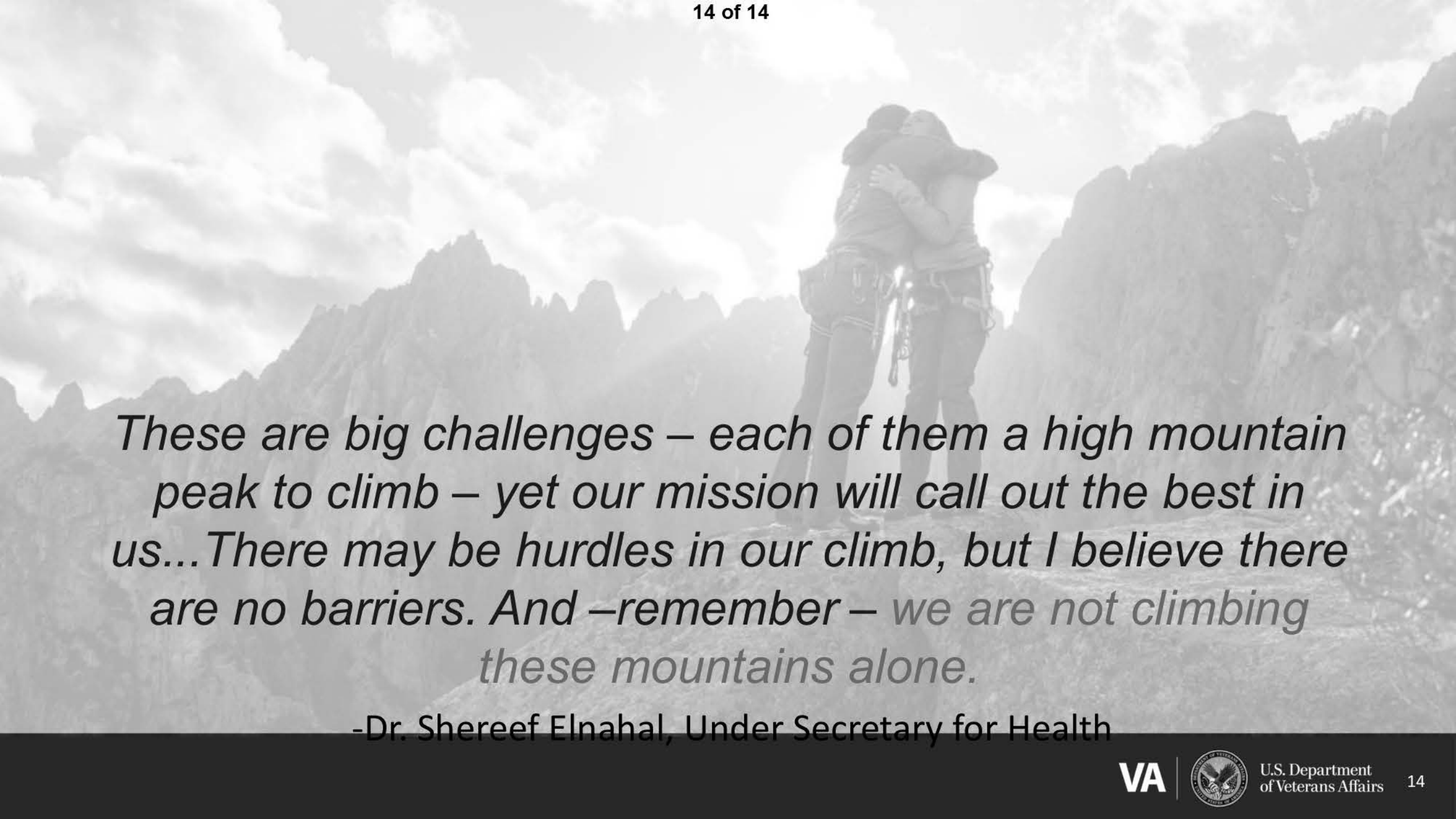
Miguel H. LaPuz, MD
Assistant Under
Secretary for Health
for Integrated Veteran Care
16



Gerard R. Cox
MD, MHA
Assistant Under Secretary
for Health for Quality
and Patient Safety
17



Alfred A. Montoya
Acting Acting
Under Secretary for
Health for Support
19

A grayscale photograph of two mountaineers standing on a jagged, rocky mountain peak. They are wearing climbing gear and are embracing each other. The background shows more mountain peaks and a cloudy sky.

These are big challenges – each of them a high mountain peak to climb – yet our mission will call out the best in us...There may be hurdles in our climb, but I believe there are no barriers. And –remember – we are not climbing these mountains alone.

-Dr. Shereef Elnahal, Under Secretary for Health

Red Team Articles Overview

Article Title	Overview of Content
(1) The Veterans Community Care Program: Background and Early Effects <i>(Nonpartisan Analysis for the U.S. Congress)</i> Elizabeth Bass, David Mosher, Edward G. Keating, Heidi Golding, John Kerman,	<ul style="list-style-type: none"> Veterans Health Administration (VHA), part of the Department of Veterans Affairs (VA), provides health care to eligible veterans using a combination of VHA and non-VHA providers and facilities. Until a few years ago, VHA generally allowed patients to seek community care (that is, it referred patients to outside providers) on an exception basis. In recent years, however, major legislative and VA-led changes to VHA's policies have increased opportunities for veterans to seek community care at VHA's expense. Currently, the Veterans Community Care Program (VCCP) allows veterans to see outside providers based on several factors, including local availability of VHA care and the circumstances of individual Veteran. Providing more access to community providers has made it easier for veterans to use outside care, but other outcomes are mixed these effects of the Veterans Community Care Program include: <ul style="list-style-type: none"> coordination of care, organizing patient care activities and sharing information among all providers for safer and more effective treatment. quality of community care providers, The MISSION Act requires VHA to establish and monitor the quality of outside providers. Health care systems construct and measure multiple dimensions of patient care, but no single national system of quality reporting exists in the US. utilization of VHA facilities, increasing access to outside providers could reduce veterans' use of facilities that have sufficient capacity today, which could lead to higher costs per veteran patient if VHA cannot close or consolidate those facilities. improved patient flow in areas with insufficient capacity, some states have a large number of VHA facilities relative to the number of enrollees and others have fewer than average. reduced use of VHA facilities in areas with sufficient capacity, widespread access to outside providers could lead to fewer veterans seeking care at VHA's medical facilities that are meeting patients' needs and operating at or under capacity. In those cases, the average cost for the remaining patients would increase because some of the facility costs are fixed.
(2) Comparing Veterans Affairs and Private Sector Perioperative Outcomes After Noncardiac Surgery <i>(Cohort Study)</i> Elizabeth L. George, MD, MSc; Nader N. Massarweh, MD, MPH; Ada Youk, PhD; Katherine M. Reitz, MD, MS; Myrick C. Shinall Jr, MD, PhD; Rui Chen, MS; Amber W. Trickey, PhD, MS, CPH; Patrick R. Varley, MD, MS; Jason Johanning, MD, MS; Paula K. Shireman, MD, MS, MBA; Shipra Arya, MD, SM; Daniel E. Hall, MD, MDiv, MH Sc	<ul style="list-style-type: none"> Objective: to compare perioperative outcomes among veterans treated in VA hospitals with patients treated in private-sector hospitals. Conclusion: VA surgical care is associated with lower perioperative mortality and decreased failure to rescue despite veterans having higher-risk characteristics. Given the unique needs and composition of the veteran population, health policy decisions and budgetary appropriations should reflect these important differences.
(3) Outcomes of Veterans Treated in Veterans Affairs Hospitals vs Non-Veterans Affairs Hospitals <i>(Cohort Study)</i> Jean Yoon, PhD, MHS; Ciaran S. Phibbs, PhD; Michael K. Ong, MD, PhD; Megan E. Vanneman, PhD, MPH; Adam Chow, BA; Andrew Redd, PhD; Kenneth W. Kizer, MD, MPH; Matthew P. Dizon, MD; Emily Wong, MPH, MA; Yue Zhang, PhD	<ul style="list-style-type: none"> Objective: to compare outcomes for 6 acute conditions in VA and non-VA hospitals for younger and older veterans using VA and all-payer discharge data.

- **Conclusion:** expanding access to non-VA care may improve timeliness and reduce travel costs for many veterans; however, higher mortality and readmissions in non-VA hospitals were observed across age groups. Veterans could experience worse outcomes for some types of care without well-developed community care networks based on quality standards and sufficient care coordination between VA and non-VA clinicians.

(4) Potentially Avoidable Hospitalizations After Chemotherapy: Difference Across Medicare and the Veterans Health Administration (Cohort Study)

Risha Gidwani-Marszowski, DrPH Katherine Faricy-Anderson, MD, MPH, Steven M. Asch, MD, Samantha Illarmo, MPH; Lakshmi Ananth, MS¹; and Manali I. Patel, MD, MS

- **Objective:** evaluated the proportions of patients treated by Medicare-reimbursed clinicians and Veterans Health Administration (VA) clinicians who experienced avoidable acute care in order to evaluate differences in health system performance.
- **Conclusion:** results indicate veterans with cancer receiving chemotherapy in the VA have higher quality care with respect to avoidable hospitalizations than veterans receiving chemotherapy through Medicare. As more veterans seek care in the private sector under the MISSION Act, concerted efforts may be warranted to ensure that veterans do not experience a decline in care quality.

(5) The Promise and Challenges of VA Community Care: Veterans' Issues in Focus (RAND Publication)

Petra Rasmussen & Carrie M. Farmer

- The U.S. Department of VA contracts with private-sector providers to help ensure that eligible veterans receive timely healthcare. This care can alleviate access barriers for veterans, but questions remain about its cost and quality.
- The landscape of veterans' health care has changed with the passage of the Veterans Choice and VA MISSION Acts. Although the laws have the potential to improve access to care for some veterans, they have also introduced additional challenges to tracking and evaluating the timeliness, quality, and coordination of care that veterans receive.

(6) VA versus Non-VA Quality of Care: A Systematic Review (Evidence Synthesis Program Assessment)

Paul Shekelle, MD, PhD, MPH, Melinda Maggard-Gibbons, MD, Mariah Blegen, MD, Eric Apaydin, PhD, MPP, MS, Neil Paige, MD, MSHS, Jamie Ko, MPH, Jesus Ulloa, MD, MBA, MSHPM, Garrett Salzman, MD, MS, Meron Begashaw, MPH, Mark D. Girgis, MD, Jody Larkin, MS

- The VA's Evidence Synthesis Program systematically reviews studies comparing the quality of VA and non-VA healthcare their key findings are:
 - In the domain of quality and safety, the great majority of studies found that VA care is as good as, or better than, care in the community.
 - For the domains of access, patient experience, and efficiency/cost, comparative studies were fewer in number and more mixed in results but tended to favor VA care.

(7) Veterans and the Affordable Care Act (JAMA Viewpoint)

Kenneth W. Kizer, MD, MPH

- The potential effects of the Affordable Care Act (ACA) on health care for veterans warrants careful consideration to include:
 - The effects of multiple health plan eligibility on access to and quality of care for VA health care enrollees should be comprehensively evaluated to prioritize solutions for coordinating VA and non-VA health care coverage for veterans.
 - A systematic assessment of current and projected VA health care workforce needs, and service utilization vulnerabilities and options for addressing them reviewed, including expansion of VA's already well-developed tele-health and home care capabilities.
 - A shared vision of the VA healthcare system in post-ACA US health care should be developed that considers the effects of increased health insurance coverage for veterans on VA's role as a

safety net provider, declining numbers of World War II and Vietnam War veterans, the increasing number of female veterans, and measures that may be taken to address federal budget problems.

(8) Restoring Trust in VA Health Care (The New England Journal of Medicine)

Kenneth W. Kizer, M.D., M.P.H., and Ashish K. Jha, M.D., M.P.H.

- Inadequate numbers of primary care providers, aged facilities, overly complicated scheduling processes, and other difficult challenges have thwarted the VA's efforts to meet soaring demand for services.
- We believe there are three main causes: an unfocused performance-measurement program, increasingly centralized control of care delivery and associated increased bureaucracy and increasing organizational insularity.

(9) Studies Show VA Healthcare is Better Than or Equal to Non-VA Healthcare (Journal of General Internal Medicine and the Journal of the American College of Surgeon)

- A national review of peer-reviewed studies that evaluated VA on quality, safety, access, patient experience, and comparative cost/efficiency reviewing non-surgical care. Of the 26 studies, 15 reported VA care was better than non-VA care and seven reported equal or mixed clinical quality outcomes. Of the 13 studies that looked at quality and safety in surgical care, 11 reported VA surgical care is comparable or better than non-VA care.
- This year's systematic review included studies published between 2015 and 2021. This is the third systematic review of studies comparing VA care to non-VA care, the most recent published in 2017. Each systematic review has come to the same overarching conclusion: on average, VA care is better than or comparable to non-VA care in the domains of clinical quality and safety.

(10) Majority of VA Healthcare Facilities Receive 4 or 5 Stars in CMS Quality Ratings, Outperforming Non-VA Facilities (VA News)

(Based on data collected from July 2018 and March 2022)

- The VA announced that 67% of VA hospitals included in the Centers for Medicare & Medicaid Services (CMS) annual Overall Hospital Quality Star Ratings received either 4 or 5 stars, compared to only 41% of non-VA hospitals.
- VA hospital outperformed non-VA hospital on all 10 core patient satisfaction metrics in the Hospital consumer Assessment of Healthcare Providers and Systems Star Ratings, and a recent systematic review of more than 40 peer-reviewed studies found that VA healthcare is consistently as good as – or better than – non-VA healthcare.

(11) Nationwide Patient Survey Shows VA Hospitals Outperform Non-VA Hospitals (VA News)

- Based on patient surveys between July 2021 and June 2022, 72% of VA hospitals received four or five stars for Overall hospital rating compared to 48% of non-VA hospitals.
- VA hospitals received a higher percentage of four or five star ratings than non-VA hospitals for Communication with doctors (87% vs. 48%), Communication with nurses (59% vs. 35%), Responsiveness of hospital staff (63% vs. 34%), Communication about medicines (80% vs. 38%), Cleanliness of the hospital environment (69% vs. 52%), Quietness of the hospital environment (49% vs. 38%), Discharge information (65% vs. 55%), Care transition (76% vs. 35%), and Willingness to recommend the hospital (76% vs. 52%).
- The VA Trust Report for the second quarter of fiscal year 2023 shows that nearly 90% of Veterans who get their care from VA trust VA for their care (based on 560,000 surveys). Additionally, more than 79% of Veterans trust VA overall, receiving a 1.9% increase from the last quarter and a 24% increase since 2016



The Veterans Community Care Program: Background and Early Effects

OCTOBER | 2021

The Veterans Health Administration (VHA), part of the Department of Veterans Affairs (VA), provides health care to eligible veterans using a combination of VHA and non-VHA providers and facilities. Until a few years ago, VHA generally allowed patients to seek community care (that is, it referred patients to outside providers) on an exception basis.¹ In recent years, however, major legislative and VA-led changes to VHA's policies have increased opportunities for veterans to seek community care at VHA's expense. Currently, the Veterans Community Care Program (VCCP) allows veterans to see outside providers on the basis of several factors, including the local availability of VHA care and the circumstances of individual veterans. In this report, the Congressional Budget Office examines some of the effects of VCCP.

Between 2014 and 2019, about two million veterans, or almost one-quarter of VHA enrollees, were authorized to use community care under VCCP's predecessor, the Veterans Choice Program. The VA MISSION Act (Public Law 115-182), which was enacted in 2018, created VCCP to replace the Veterans Choice Program as well as most agreements that VA medical centers had with local private providers; it also consolidated other community care programs. The MISSION Act diverges from previous VA policy that used community providers as a last resort. Now, eligible veterans may choose community care even if a VHA provider is available as long as they meet specific requirements.

1. The use of outside providers has been known by many names and has fallen under many VHA programs; in this report all such care, including long-term care, is referred to as community care unless otherwise indicated.

In examining the effects of VA's changing policies toward community care, CBO determined that since 2014, the number of veterans using community care has increased and average wait times in VHA facilities have declined and remained generally below those in the private sector. CBO estimates that VHA's costs for community care grew from \$7.9 billion in 2014 to \$17.6 billion in 2021. (All dollar values are expressed in 2021 dollars unless otherwise stated.)

In addition, CBO found that prioritizing veterans' access to community providers may affect other aspects of patient care and VHA's ability to deliver it: It is more difficult for VHA to coordinate care outside of its own facilities, and VHA has little control over the quality of care that veterans receive from community providers. Finally, increasing access to community care may reduce utilization of VHA facilities that have sufficient capacity, which could lead to higher costs per veteran if VHA cannot close or consolidate them.

What is the Veterans Community Care Program?

VCCP permits veterans who meet specific requirements to see outside health care providers who are paid by VHA. Although VHA has always used community providers for veterans under certain circumstances, the legislation that created VCCP consolidated and replaced many of VHA's existing community care agreements with one program and expanded the number of veterans eligible to seek care outside of VHA facilities.

VHA Health Care Services

VHA operates a direct care network of 170 medical centers and more than 1,000 outpatient clinics, rehabilitation

Notes: In discussing the Veterans Health Administration's costs for community care, this report cites data provided by VHA regarding obligations recorded by that agency for such care. Legislation provides agencies with the authority (called budget authority) to spend money for their programs; then, those agencies make commitments (called obligations) to spend that money; and lastly, the Treasury spends the money as outlays to fulfill those obligations. In any given year, obligations and outlays tend to be similar because most obligations result in outlays during the same fiscal year. To remove the effects of inflation, dollar values are adjusted with the gross domestic product price index from the Bureau of Economic Analysis. All dollar values are expressed in 2021 dollars unless otherwise stated.

facilities, and nursing homes. Services include inpatient, outpatient, and specialty care; pharmaceuticals; and auxiliary social support, such as programs for the homeless and stipends for caregivers.

The amount of care and services VHA can provide is determined by funding that the Congress appropriates each year. Given that budgetary constraint, VHA calculates how many veterans it can serve using a system of priority groups. When veterans first apply for care, they are assigned to one of eight priority groups (with 1 denoting the highest) on the basis of a number of factors, including service-connected disabilities and income.² (Service-connected disabilities are medical conditions that develop or worsen during a service member's time in the military; they are determined by VA.) Depending on their assignment, some veterans receive free care, some have minimal cost sharing for treatment or pharmaceuticals, and some are not permitted to enroll; that is, not all veterans are eligible for VHA services.

Of the 9.2 million veterans enrolled with VHA in 2020, about 6.2 million actually sought care from VHA that year (760,000 nonveteran patients were also treated).³ Most veterans do not rely on VHA for all their medical treatment: Many have additional insurance and receive a large amount of health care from other sources, particularly Medicare. VHA projects that spending will average \$14,750 per veteran patient in 2021 and that enrollment will remain relatively steady until 2023, when mortality in the enrollee population is expected to surpass new enrollment.

Development of the Veterans Community Care Program

Community care has been used to supplement VA-provided health care for veterans since World War I,

but eligibility requirements have evolved. In the 1920s, when VA mainly provided inpatient services, the Congress authorized contracting with outside providers in certain circumstances. For instance, VA paid for some outpatient care to treat veterans with service-connected disabilities. In 1957, female veterans and all veterans living in U.S. territories were made eligible to seek community care, and in 1979, veterans who were receiving a VA pension or who were housebound also qualified. Some services (such as dialysis) were authorized for community care when VA medical centers were far away from where patients lived or the centers were very busy; other services (such as obstetrics) were authorized because VA medical centers did not provide them.

In 1989, VA was reorganized and VHA was established shortly thereafter to administer health care for veterans, both in VHA facilities and in the community when necessary. VHA agreements for community care mainly operated at the local level.⁴ That care was paid for on a fee-basis arrangement, whereby providers (such as community private hospitals and home health care services) submitted bills to the local VHA facility, which then authorized payment of the expense from a central payment center.

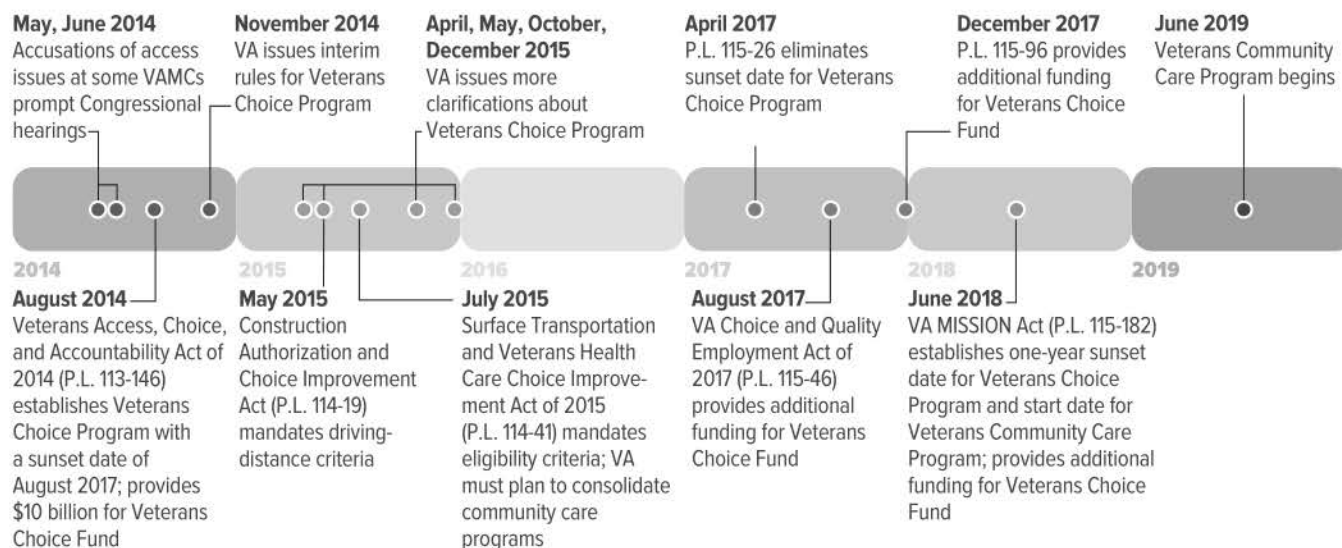
Veterans' access to community care has expanded significantly since 2014 (see Figure 1). In the spring of that year, accusations surfaced about long wait times for outpatient appointments and unscrupulous management practices at several VA medical centers. In response to those accusations, lawmakers enacted legislation requiring VHA to provide access to health care in the community for veterans who could not be seen in a timely manner or who lived far from a VHA facility. The Veterans Access, Choice, and Accountability Act of 2014 (P.L. 113-146), enacted in August of that year, established the Veterans Choice Program, a temporary benefit that allowed eligible veterans to see non-VHA providers. Lawmakers appropriated \$10 billion (in nominal dollars) over three years to treat veterans in the community if they were unable to schedule appointments at VHA facilities within VA's goals for wait times (30 days) or if they had to drive long distances to the nearest VHA facility (more than 40 miles). The act required VHA to begin allowing more veterans to seek community care within 12 weeks of enactment.

2. The highest-priority groups, groups 1 to 3, are veterans who have service-connected disabilities. Priority group 4 consists of veterans who are housebound or catastrophically disabled. Priority group 5 contains lower-income veterans. Priority group 6 includes special populations, such as certain combat veterans discharged from the military within five years of applying for VA health care. The lowest-priority groups, groups 7 and 8, contain higher-income veterans with no compensable service-connected disabilities (enrollment in priority group 8 has been partially restricted since 2003). For a full description, see Department of Veterans Affairs, "Health Benefits" (April 23, 2019), <https://go.usa.gov/x6mVW>.
3. About one-third of enrollees do not seek treatment from VHA in a given year. Nonveteran patients include active-duty military and reservists, certain surviving spouses and family members of veterans, and employees receiving care, such as occupational immunizations.

4. For more detail on the history of VHA's use of outside providers, see Sidath Viranga Panangala and others, *VA Maintaining Internal Systems and Strengthening Integrated Outside Networks Act of 2018 (VA MISSION Act; P.L. 115-182)*, Report R45390, version 2 (Congressional Research Service, November 1, 2018), <https://go.usa.gov/x6mVd>.

Figure 1.

Recent Legislation and Agency Rules Affecting Veterans' Community Care



Data source: Congressional Budget Office.

VA = Department of Veterans Affairs; VAMCs = Veterans Affairs Medical Centers.

Additionally, the act provided \$5 billion (in nominal dollars) for VHA to hire more medical staff and expand its in-house capabilities over several years.⁵ In the following months and into 2015, clarifications and revisions were made to the Veterans Choice Program by VHA, which issued and implemented rules for the program, and by the Congress in subsequent legislation.

In 2017, a new Congress and Presidential Administration significantly changed VHA's policy of using community care as a last resort. Under the new policy, veterans who meet broad criteria can choose whether to seek care from VHA or in the community. In April, while VHA was developing a new program, lawmakers eliminated the August expiration date for the Veterans Choice Program, and in December, they provided additional funds for the program. Meanwhile, VHA continued developing plans to consolidate most community care contracts and to ultimately replace the Veterans Choice Program. VHA crafted new eligibility criteria for receiving care in the community that were based largely on timely access to services and clinical need, which gave veterans more

options to seek treatment for particular medical conditions outside VHA facilities.

In the spring of 2018, various health care provisions were combined into a single piece of legislation, the VA MISSION Act, which was signed into law on June 6.⁶ That act created VCCP, a permanent program providing medical and long-term care services through non-VHA health care providers.⁷ The act altered the legal framework around many local agreements and other community care programs.⁸ VHA now uses contractors to develop and administer regional networks of community care providers that furnish medical care and related services

5. See Congressional Budget Office, letter to the Honorable Bernie Sanders providing an estimate for H.R. 3230, the Veterans Access, Choice, and Accountability Act of 2014 (July 29, 2014), www.cbo.gov/publication/45601.

6. In September 2018, some changes and technical amendments were made under the Department of Veterans Affairs Expiring Authorities Act of 2018 (P.L. 115-251).

7. For a detailed description of the VA MISSION Act, see Sidath Viranga Panangala and others, *VA Maintaining Internal Systems and Strengthening Integrated Outside Networks Act of 2018 (VA MISSION Act; P.L. 115-182)*, Report R45390, version 2 (Congressional Research Service, November 1, 2018), <https://go.usa.gov/x6mVd>.

8. The act left in place several statutory provisions, including those governing care provided by the Department of Defense and by the Indian Health Service (the federal health care provider for Native Americans).

to enrolled veterans.⁹ Those providers are predominantly, but not exclusively, participants in the Medicare program.

How Do Veterans Qualify for the Veterans Community Care Program?

Veterans qualify for VCCP under one or more criteria that are based on their situation or VHA's in-house capabilities. VHA also introduced new access standards for wait and drive times; the latter markedly increased the number of veterans eligible for community care. Theoretically, under VCCP, every enrolled veteran could be eligible for community care in certain circumstances.

Eligibility for Community Care

The 2018 legislation provided general conditions under which VHA is required to provide community care but left some criteria to the discretion of the VA Secretary. Because the program is new, implementation of VCCP is still evolving. As of 2021, veterans qualify for community care under one or more of the following six criteria:

- The veteran requires care or services that VHA facilities do not offer.
- The veteran resides in one of the three states or one of the four territories without a full-service VHA medical facility.¹⁰
- The veteran previously qualified for community care with the Veterans Choice Program under certain provisions.
- VHA facilities do not offer the care or service that meet VA-designated access standards regarding wait time for appointments or drive time to facilities.
- VHA facilities do not offer the care or service that meet VA-designated quality standards.
- The veteran and VHA provider agree that it is in the best interest of the veteran to receive care from outside providers.

VHA authorizes use of community providers for what is called an episode of care, or a course of treatment for a specific medical problem during a set time period. In other words, community care is approved for treating—in part or entirely—a particular medical condition, and that approval does not authorize a veteran to receive subsequent care from outside providers. In general, VHA staff need to approve community care before the first visit, except for emergency and urgent care visits.¹¹ Appointments with approved providers (those participating in Medicare and Medicaid programs and federal providers, such as the Department of Defense) may be made by the veteran, VHA, or the contractors who administer the community care networks. As of 2020, approximately 1.7 million community providers had joined VHA's regional networks, and most of them agree to the rates Medicare pays its providers.¹²

Access Standards

Under the authorities established in the MISSION Act, VHA introduced new standards for wait and drive times for VCCP eligibility, which have expanded the number of veterans eligible for community care and will probably have large effects on the scope and costs of the program. The new drive-time standards are the same as those used for Tricare Prime, the HMO-style health care program administered by the Department of Defense (DoD). DoD has relied heavily on community providers to treat beneficiaries other than active-duty personnel for many decades; by contrast, VHA has traditionally delivered most care directly.

Although lowering wait and drive times was the impetus for expanding veterans' access to community care, community care providers do not have to meet the access standards that apply to VHA. Although VA tries to ensure that its contractors build and maintain adequate networks using access standards similar to VHA's, VHA officials have acknowledged that once eligible veterans choose community care, VHA has no control over how

9. VHA may also enter into supplemental contracts, known as Veterans Care Agreements, if care cannot be delivered in VHA facilities, through VCCP community networks, or by using other statutory authorities. For example, VHA contracts with State Veterans Homes, which are facilities owned and operated by state governments, to provide nursing home, domiciliary, or adult day care services.

10. The states are Alaska, Hawaii, and portions of New Hampshire; the territories are Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands.

11. Veterans who disagree with authorization decisions may use VHA's internal clinical decision appeals process. Emergency care is covered under a separate authority from VCCP.

12. Providers are organized into six geographic regions managed by contractors; veterans may see only those providers who are part of the VHA network. When care or services are not payable under Medicare rates, are payable under Medicare but with no established pricing at the national or local level, or are provided in a highly rural area, payment rates may be established by the VA Secretary.

long private providers make veterans wait for an appointment.¹³ As a result, VHA has no specified goal for the maximum wait time for a veteran to obtain community care. Similarly, qualifying veterans may choose a private provider farther away than a closer VHA facility.

Wait Times for Appointments. The Veterans Choice Program wait standard (that is, the maximum number of days a veteran could wait) was defined as not more than 30 days for a new appointment. Under VCCP, VHA has shortened the standard to 20 days for primary care, mental health care, and noninstitutional extended care services (such as geriatric evaluations, adult day health care, and respite care). The standard for specialty care is 28 days. Those standards do not apply in cases in which a veteran agrees to wait longer after consulting with the VHA provider.

Under the Veterans Choice Program, about half of veterans using community care qualified on the basis of long wait times at VHA facilities. However, the decrease in wait times at those facilities since 2014 makes it less likely that veterans will qualify for VCCP on that basis. VHA operates a website where patients can check the average wait time at specific VHA facilities, and it regularly posts detailed historical access information, including average wait times based on outpatient appointment information from its scheduling system.¹⁴ Measuring actual wait times may be difficult for most health care providers, and despite improvement in recent years, outside audits in 2020 and earlier years concluded that VHA still experienced some problems in measuring wait times and scheduling veterans' appointments.¹⁵

Drive Time. Under the Veterans Choice Program, veterans qualified for community care if they had to drive a

distance of more than 40 miles to the closest VHA facility.¹⁶ Under VCCP, the driving standard is based on time rather than distance: Veterans qualify for community care if they have to drive an average of more than 30 minutes to the nearest VHA facility for primary care, mental health care, or noninstitutional extended care services; for specialty care, the drive-time standard increases to no more than 60 minutes.

Unlike the criterion for wait times, the criterion for drive times has not been systematically evaluated.¹⁷ Under the Veterans Choice Program, relatively few veterans (about 250,000 patients) qualified under the driving-distance standard. Under VCCP, drive time will probably be the most common condition under which veterans may access community care. According to VHA data provided to CBO, at least 2 million veterans (about one-quarter of all enrollees and 1 in 3 patients) were eligible for VCCP on the basis of drive time in 2020. Most of those 2 million veterans probably live in rural areas. VHA allocates resources to serve those rural veterans by constructing VHA facilities in areas with limited access to care—which tend to be sparsely populated—and by offering numerous programs through its Office of Rural Health. Even so, many of those areas are so remote that no providers, VHA or otherwise, could be reached within 30 minutes.

How Has Access to Care Been Affected?

Many veterans may find it easier to access care than they did in 2014 because the number of veterans using community care has increased and average wait times in VHA facilities have decreased.

In 2014, about 1.3 million veterans were authorized to use outside care under previous community care agreements. By 2020, that number had grown by more than 75 percent to 2.3 million veterans. (More veterans were

13. See Government Accountability Office, *Veterans Community Care Program: Improvements Needed to Help Ensure Timely Access to Care*, GAO-20-643 (September 2020), www.gao.gov/products/gao-20-643.

14. See Department of Veterans Affairs, "Average Wait Times at Individual Facilities" (accessed June 21, 2021), <https://go.usa.gov/x6mvT>, and "Veterans Health Administration, Patient Access Data" (accessed June 21, 2021), www.va.gov/health/access-audit.asp.

15. See Testimony of Debra A. Draper, Director, Health Care, Government Accountability Office, before the House Committee on Veterans Affairs, *Veterans Health Care: Opportunities Remain to Improve Appointment Scheduling Within VA and Through Community Care*, GAO-19-687 (July 24, 2019), www.gao.gov/products/gao-19-687t.

16. Veterans who had to travel by air, boat, or ferry, or who otherwise faced an unusual or excessive burden in accessing VHA facilities were exempt from the 40-mile distance requirement.

17. A single study examined driving distances under the Veterans Choice Program for cataract surgery; it found that some veterans drove farther than the closest private sector provider but that others who chose direct care used the closest VHA facility, suggesting that there are other reasons besides driving distance that affect where veterans seek care. See Warren B. P. Pettey and others, "Comparing Driving Miles for Department of Veterans Affairs-Delivered Versus Department of Veterans Affairs-Purchased Cataract Surgery," *Medical Care*, vol. 59 (June 2021), pp. 307–313, <https://tinyurl.com/fbhcsy9b>.

authorized to use community care than did so, but VHA did not provide CBO with data on use.) Over those same years, the number of VHA enrollees increased by just 2 percent. The long-term trend for VHA's patient load is down: The number of veterans in the United States has fallen from 30 million in 1980 to fewer than 20 million in 2021.

VHA facilities have, on average, shorter wait times than those in the private sector.¹⁸ Recent research has found that VHA wait times for primary care and several specialties have improved since 2014 and that average wait times for VHA providers are now the same or shorter than those for outside providers.¹⁹ That is true for veterans living in urban areas as well as those in rural ones.²⁰

Recent studies have concluded that many VHA facilities with longer wait times are located in regions that also have long waits for community care, and VHA administrative data support those findings.²¹ For instance, certain VHA facilities in the South and parts of Texas reflect the scarcity of private-sector providers in those areas, leading to heavier reliance—as measured by the share of all health care received—on VHA. (Even when private providers exist in an area, their participation in VCCP is not mandated or otherwise guaranteed.)

During the 2020–2021 coronavirus pandemic, certain restrictions regarding telehealth were waived so that veterans had access to community providers while offices and clinics were closed. VHA officials have said that use of telehealth depended on community providers' telehealth capabilities, veterans' preferences, and the type of care needed. Use of telehealth within VHA was extensive during much of 2020.²²

How Has Spending on Community Care Changed?

VHA's spending on community care has grown sharply in recent years, in terms of both dollars spent and its share of VHA's total spending. In 2014, community care for veterans accounted for \$7.9 billion, or about 12 percent of VHA's budget. By 2021, the cost of community care programs had more than doubled to \$17.6 billion and accounted for about 20 percent of VHA's budget, CBO estimates. VA was appropriated \$89.8 billion in 2021 for medical care (of which direct clinical services are only part); that was about 40 percent of the department's funding for all programs.²³ (All of those dollar values are expressed in 2021 dollars.)

Historical Spending and Funding Requests for Community Care

Growth in VHA's recent spending on community care can be considered over two periods: The growth in the first was a result of the temporary program (Veterans Choice Program), and the increase in the second was a result of VCCP. In the first period, 2014 to 2019, VHA's annual costs for community care—for both health care and long-term care—rose significantly, starting with a 33 percent increase in 2015, the first year the Veterans Choice Program was put into place (see Table 1). As that program matured, growth in costs moderated. By 2018, those

18. See statement of Theresa Boyd, Assistant Deputy Under Secretary for Health, Department of Veterans Affairs, before the Senate Committee on Veterans Affairs (May 22, 2019), <https://tinyurl.com/yj9rbk87> (PDF, 317 KB).

19. In 2017, overall average wait times for new appointments in VHA facilities (17.7 days) were shorter than those for appointments in the private sector (29.8 days). See Madeline Penn and others, "Comparison of Wait Times for New Patients Between the Private Sector and United States Department of Veterans Affairs Medical Centers," *JAMA Network Open*, vol. 2, no. 1 (2019), <https://dx.doi.org/10.1001/jamanetworkopen.2018.7096>; and Kevin N. Griffith, Nambi J. Ndugga, and Steven D. Pizer, "Appointment Wait Times for Specialty Care in Veterans Health Administration Facilities vs Community Medical Centers," *JAMA Network Open*, vol. 3, no. 8 (2020), <https://dx.doi.org/10.1001/jamanetworkopen.2020.14313>.

20. See Deborah Gurewicz and others, "Did Access to Care Improve Since Passage of the Veterans Choice Act?: Differences Between Rural and Urban Veterans," *Medical Care*, vol. 59 (June 2021), pp. S270–S278, <https://tinyurl.com/v5fus64r>.

21. See Kevin N. Griffith, Nambi J. Ndugga, and Steven D. Pizer, "Appointment Wait Times for Specialty Care in Veterans Health Administration Facilities vs Community Medical Centers," *JAMA Network Open*, vol. 3, no. 8 (2020), <https://dx.doi.org/10.1001/jamanetworkopen.2020.14313>.

22. For more detail regarding VHA's efforts with community providers during the coronavirus pandemic, see Government Accountability Office, *Veterans Community Care Program: VA Took Action on Veterans' Access to Care, But COVID-19 Highlighted Continued Scheduling Challenges*, GAO-21-476 (June 2021), www.gao.gov/products/gao-21-476.

23. That amount excludes emergency funding that VHA received in March 2020 as part of the Coronavirus Aid, Relief, and Economic Security Act (P.L. 116-136): \$14.4 billion for direct care and related medical support and \$2.1 billion for increased community care, which translates to an average of an additional \$2,700 per veteran patient. In March 2021, VA received an additional \$17.1 billion as part of the American Rescue Plan Act of 2021 (P.L. 117-2); most of that funding was allotted to VHA programs, including \$4 billion specifically for VCCP.

Table 1.

VA's Costs for Community Care for Veterans, Fiscal Years 2014 to 2023

Billions of 2021 Dollars

	2014	2015	2016	2017	2018	2019	2020	Estimated 2021	Revised Request 2022	Advance Request 2023
Costs for Health Care Paid From VHA's Appropriations	4.9	4.2	5.1	4.3	4.9	7.4	12.1	12.8	17.2	18.0
Costs for Health Care Paid From Veterans Choice Fund	0	2.7	2.1	4.5	3.0	1.8	0.8	0.1	0	0
Subtotal, health care	4.9	6.9	7.2	8.8	8.0	9.2	13.0	12.9	17.3	18.0
Costs for Long-Term Services and Supports Paid From VHA's Appropriations	3.0	2.8	3.5	3.1	3.3	3.6	3.9	4.7	5.5	5.8
Costs for Long-Term Services and Supports Paid From Veterans Choice Fund	0	0.7	0.1	0.6	0.8	0.4	0	0	0	0
Subtotal, long-term services and supports	3.0	3.6	3.5	3.7	4.0	4.0	3.9	4.7	5.5	5.8
Total	7.9	10.5	10.7	12.5	12.0	13.2	16.9	17.6	22.7	23.9
Memorandum:										
Number of Veterans Authorized for Community Care (Millions)	1.3	1.4	1.6	1.6	1.8	2.1	2.3	n.a.	n.a.	n.a.
Number of Veteran Patients (Millions)	6.0	6.0	6.1	6.1	6.2	6.3	6.2	6.3	6.3	6.4
Number of Enrolled Veterans (Millions)	9.1	9.0	9.0	9.1	9.2	9.2	9.2	9.2	9.2	9.2

Data source: Congressional Budget Office, using data from the Department of Veterans Affairs. See www.cbo.gov/publication/57257#data.

Community care comprises health care (inpatient, outpatient, dental, mental health, prosthetics, and rehabilitation services) and long-term services and support (community nursing homes and noninstitutional care, and state facilities and programs).

VHA pays for other programs using community care funds that are not included here, such as those for caregivers and for the Camp Lejeune Family Member Program.

Amounts do not include adjustments from audits, accounting changes, or additional Congressional funding in 2016. Those amounts total approximately \$3 billion from 2014 to 2021. Emergency funding in March 2020 and 2021 for the coronavirus pandemic is also excluded.

VA = Department of Veterans Affairs; VHA = Veterans Health Administration; n.a. = not applicable.

costs had risen by an additional 14 percent. Long-term services and supports (predominantly nursing home care) accounted for about 30 percent of all community care costs and experienced less growth than costs of health care.²⁴

In the second period, beginning in 2020, costs for community care and requests for future funding jumped

further when VCCP was implemented. For 2023, VHA's advance request for community care is \$23.9 billion (in 2021 dollars), three times the costs in 2014 and double the amount in 2018.²⁵ That growth contrasts sharply with VHA enrollment: Over the 2014–2021 period, the number of veteran patients increased by only 3 percent.

24. CBO's estimates of VHA's costs for community care reflect only obligations for health care and long-term care, not for other programs such as those for caregivers and Camp Lejeune families. The estimates also exclude hepatitis C treatment and information technology costs that were partially paid from the Veterans Choice Fund, which was set up under the Veterans Choice Program and provided with mandatory funding to carry out VA's requirements to furnish hospital care and medical services through agreements with specified non-VA providers. CBO estimates that the fund financed \$17.7 billion of community care from 2015 to 2021. Some funds remain in the Veterans Choice Fund, and they can be used for VCCP.

25. Each year, VHA receives a regular appropriation for the upcoming fiscal year and an advance appropriation for the following year. None of the amounts include additional funding for community care that the Congress provided for the coronavirus pandemic. In May 2018, CBO estimated that VCCP would cost \$21.4 billion in nominal dollars from 2019 through 2023. CBO's estimate for all provisions of the MISSION Act was \$46.5 billion in nominal dollars, subject to future appropriations. See Congressional Budget Office, cost estimate for H.R. 5674, the VA Maintaining Internal Systems and Strengthening Integrated Outside Networks Act of 2018 (May 14, 2018), www.cbo.gov/publication/53871.

Future Spending for Community Care

Because the amount of care VHA provides is determined by how much funding the Congress appropriates for VA each year, the Congress directly controls future spending. (For the other major VA programs, such as veterans' disability compensation, lawmakers set eligibility and benefit amounts but do not directly control the costs.) VHA's budget requests will depend in part on veterans' choices about whether to pursue care outside of VHA and the costs for non-VHA providers. Increased pressure on spending could result in larger budget requests or in VHA's moving resources away from other programs to fund community care.

There may be pressure for increased spending because VHA has limited ability in the near term to control the use of community care once a veteran has been approved to seek it and because community care may be more expensive than care in VHA facilities. Cost comparisons of VHA's direct care to purchased care are rare, and much of the existing research is outdated. A recent study, however, confirmed earlier findings that VHA care cost less than comparable services from Medicare providers and that VHA patients had better health outcomes.²⁶

Different practice patterns by outside providers could also put upward pressure on spending. Some of those practice differences might stem from the cost control and incentive structures of VHA physicians and private-sector providers; VHA does not control the amount or type of services veterans receive once they have been referred to outside providers for a particular episode of care. VHA officials reported that higher-than-estimated spending for community care in 2017 and 2018 was driven, in part, by local practice patterns, such as use of magnetic resonance imaging instead of less costly tests like computed tomography scans and x-rays.

Conversely, the cost of community care would be less if, for example, outside clinicians provided fewer referrals for other health care or tertiary services than VHA providers.

Private-sector providers may also be more efficient or see more patients per day. Also, use of community providers could free up space in busy VA medical centers, allowing VHA to avoid making expensive capital investments to expand those facilities or build new ones.

Pressure for increased spending for VCCP could be a challenge for future VA budgets, particularly because VA's spending has grown significantly faster than economywide inflation over the past two decades.²⁷ If veterans increased their reliance on VHA for their health care and chose to seek community care, paying for that care could lead to more rapid spending growth.²⁸ If VA did not receive enough funding to accommodate that growth, the VA Secretary could tighten access to community care or rescind enrollment for veterans in lower priority groups to provide care for those in higher priority groups (as required under current law). The Congress could also legislate more restrictive access criteria for use of community care or reduce spending for other programs, both defense and nondefense.

What Are Other Effects of the Veterans Community Care Program?

Providing more access to community providers has made it easier for veterans to use outside care, but other outcomes are mixed.²⁹ In its 2021 budget submission, VA stated that its goal is to "provide high-quality, timely, veteran-centric care in line with veterans' preferences and clinical needs."³⁰ However, conflicts often exist between quality, timeliness, patients' preferences, clinical needs, and cost. The MISSION Act introduced requirements that may remain outside the agency's control or that are

26. For an overview of those older studies comparing VHA to outside providers, see Congressional Budget Office, *Comparing the Costs of the Veterans' Health Care System With Private-Sector Costs* (December 2014), www.cbo.gov/publication/49763. In 2020, researchers examining outcomes in emergency rooms found that veterans taken by ambulance to VHA hospitals had better survival rates and overall lower spending than veterans taken to hospitals that accept Medicare patients. See David C. Chan, David Card, and Lowell Taylor, "Is There a VA Advantage? Evidence From Dually Eligible Veterans" (presentation given at Department of Veterans Affairs, Health Services Research & Development, Cyberseminars, November 2020), <https://go.usa.gov/x6mfmm>.

27. For a discussion of VA's spending since 2000, see Congressional Budget Office, *Possible Higher Spending Paths for Veterans' Benefits* (December 2018), www.cbo.gov/publication/54881, and *Potential Costs of Veterans' Health Care* (October 2010) www.cbo.gov/publication/21773.

28. VHA reports that enrollees rely on the agency for about one-third of their health care (excluding long-term care). Limited evidence—mainly from the department's budget requests—suggests that reliance on VHA is growing; the agency expects further increases as a result of the MISSION Act.

29. For an overview of VA's research on veterans' use of community care—predominantly under the Veterans Choice Program—and how VHA facilities interact with community care providers, see the dedicated issue of *Medical Care*, vol. 59 (June 2021), <https://tinyurl.com/3n22ps8u>.

30. See Department of Veterans Affairs, Office of Budget, *Medical Programs and Information Technology Programs*, vol. 2 of FY 2021 Budget Submission (February 2020), p. VHA-2, www.va.gov/budget/products.asp.

conflicting. For example, contracts with outside providers that require screening for mental health, reporting quality measures, and sharing patient records for payment could seem onerous, which may result in fewer providers joining the network of community providers. Because VCCP is new, its effects on use of community care, cost, and other metrics are generally unknown. Nonetheless, research indicates that coordinating care among health care systems is difficult. Monitoring the quality of care provided by every non-VHA provider may be impractical. Increased use of outside providers may also lead to an underutilization of existing VHA facilities.

Coordination of Care

Care coordination involves organizing patient care activities and sharing information among all providers for safer and more effective treatment. Research indicates that such coordination is particularly important for patients with chronic conditions or multiple conditions. Among veterans, those medical and psychological conditions include cancer, chronic obstructive pulmonary disease, posttraumatic stress disorder, and suicide risk.

Evidence shows that coordination of care between VHA and other providers has been uneven.³¹ As of June 2020, very few community providers had signed up to use VHA's software system to manage referrals and share information.³² Researchers have found that both VHA and non-VHA providers have expressed frustration with communication, methods of sharing medical information, and variations in how care is delivered. Many of those issues were experienced under the Veterans Choice Program. Providers also expressed frustration with delayed payments. Because of those experiences, community providers in certain areas are unwilling to participate in the new VCCP.³³

31. See Megan E. Vanneman and others, "Veterans' Experiences With Outpatient Care: Comparing the Veterans Affairs System With Community-Based Care," *Health Affairs*, vol. 39, no. 8 (August 2020), pp. 168–176, <http://dx.doi.org/10.1377/hlthaff.2019.01375>; and Kristin M. Mattocks and others, "Recommendations for the Evaluation of Cross-System Care Coordination From the VA State-of-the-Art Working Group on VA/Non-VA Care," *Journal of General Internal Medicine*, vol. 34 (May 2019), pp. S18–S23, <http://dx.doi.org/10.1007/s11606-019-04972-1>.

32. VHA expects that, when fully implemented, that software system, the HealthShare Referral Manager, will also manage authorizations between VHA and community providers. But community providers are not required to use the HealthShare Referral Manager.

33. See Kristen M. Mattocks and others, "Understanding VA's Use of and Relationships With Community Care Providers Under the

The risks of poorly coordinated care include repeated or unnecessary tests, inconsistent medical instructions, and uneven transitions across providers. VHA offers training to community providers about several health care needs common to veterans. In most cases, that training is optional, however, and many community providers may not be aware of those needs.³⁴ Additionally, once a veteran is approved for community care for an episode of care, VHA may be unable to retain that patient for in-house treatment and could therefore lose the ability to coordinate the patient's treatment to achieve the best outcomes. Still, future coordination of care could improve if outside providers took advantage of VHA's electronic health care records and new programs and if they developed standing relationships with their local VHA facilities.

Quality of Community Care Providers

Community care providers in VHA's network must meet credentialing standards—they must provide evidence of licensure, education, and training—but the quality of many of those providers is unknown. (Health care quality encompasses many aspects of patient care, but in general, quality indicates how well medical services improve health outcomes.)³⁵ A long literature, including several recent studies, has consistently found that VHA generally delivers high quality care that is as good as or better than that offered by outside providers.³⁶

MISSION Act," *Medical Care*, vol. 59 (June 2021), pp. S252–S258, <https://tinyurl.com/hfrk384f>.

34. VHA requires providers who can prescribe opioids to complete that training.

35. The National Academy of Medicine defines quality as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge." See Agency for Health Care Research and Quality, "Understanding Quality Measurement" (June 2020), <https://go.usa.gov/xMS4e>.

36. See Stephen W. Waldo and others, "Outcomes Among Patients Undergoing Elective Percutaneous Coronary Intervention at Veterans Affairs and Community Care Hospitals," *Journal of the American College of Cardiology*, vol. 76, no. 9 (September 1, 2020), pp. 1112–1116, <http://dx.doi.org/10.1016/j.jacc.2020.05.086>; Paul G. Barnett and others, "Comparison of Accessibility, Cost, and Quality of Elective Coronary Revascularization Between Veterans Affairs and Community Care Hospitals," *JAMA Cardiology*, vol. 3, no. 2 (January 3, 2018), pp. 133–141, <http://dx.doi.org/10.1001/jamacardio.2017.4843>; and Rebecca Anhang Price and others, "Comparing Quality of Care in Veterans Affairs and Non-Veterans Affairs Settings," *Journal of General Internal Medicine*, vol. 33, no. 10 (April 25, 2018), pp. 1631–1638, <http://dx.doi.org/10.1007/s11606-018-4433-7>.

The MISSION Act requires VHA to establish and monitor the quality of outside providers. Health care systems construct and measure multiple dimensions of patient care, but no single national system of quality reporting exists in the United States. Therefore, in general, any measures that VHA receives are not standardized. Additionally, participants in VHA's network are not required to report VHA's quality measures, and providers' quality varies. The quality of many discrete services, like kidney dialysis or monitoring of cholesterol levels, are probably similar across providers, whereas more complicated, clinician-intense treatments, like mental health care and occupational therapy, probably differ substantially.

VHA has several new initiatives to assess the quality of care from outside providers. Some monitoring may be accomplished through accreditation, a process by which standards are set and providers are reviewed to make sure they meet those standards. Accreditation from outside entities is common. Medicare providers must be certified by the state in which they practice, but outside accreditation for them is voluntary. VHA also hosts a website (www.accesscare.va.gov/) that provides quality comparisons for its own facilities and some non-VHA providers using information from the Centers for Medicare & Medicaid Services and others. Certain measures, such as mortality rates and adherence to safety protocols, are easy to document. But other dimensions of health care quality are hard to assess: Patient satisfaction, for instance, probably has little to do with the clinical quality of care provided.³⁷ And although VHA can promote its services and veteran-focused care, veterans may prioritize convenience even if that results in lower quality than VHA provides.

Utilization of VHA Facilities

In certain parts of the country, VHA faces imbalances between the size and location of its medical facilities and the number of veterans living in those states. According to VHA, increasing veterans' access to community care

will expand capacity and efficiency in some of its medical centers; it may also allow VHA to avoid the high capital costs of building new facilities. But in other places, increasing access to outside providers could reduce veterans' use of facilities that have sufficient capacity today, which could lead to higher costs per veteran patient if VHA cannot close or consolidate those facilities.

Improved Patient Flow in Areas With Insufficient Capacity.

During the late 1990s and 2000s, VHA invested heavily in infrastructure as it shifted from primarily acting as an inpatient provider to offering more outpatient and broad-based care for any veteran who enrolled. Most VHA hospitals and large outpatient clinics are in states east of the Mississippi River that have traditionally been densely populated by veterans, such as Pennsylvania, Ohio, and Illinois. Since then, however, many older veterans from the Northeast or Midwest—colder and often more expensive areas of the country—spend part of the year in or have retired to states in the Southeast and Southwest. As a result, some states have a large number of VHA facilities relative to the number of enrollees and others have fewer than average (see Figure 2). For example, New York has the same number of VHA hospitals and clinics as Florida but less than half the enrollees. Likewise, Massachusetts has twice the number of VHA facilities that Nevada has but only 10 percent more enrollees. There may be shorter waits in places like Hartford, Connecticut, than in locations farther south, like New Mexico and western Alabama. However, CBO determined that geographic region and longer wait times do not directly correlate because wait times are influenced by many factors, including how facilities are managed.

If VHA was able to rely on the private sector to treat veterans in areas of the country where delays occurred, it could ensure timely care for veterans in existing VHA hospitals and clinics. Moreover, VHA would save money by not making costly investments in new or larger facilities, equipment, and personnel in an era when the nation's population of veterans is shrinking. That also applies to VHA facilities that experience seasonal variation in appointment volume. However, in places where there are few private providers, access to community care may only have a small effect.

Reduced Use of VHA Facilities in Areas With Sufficient Capacity.

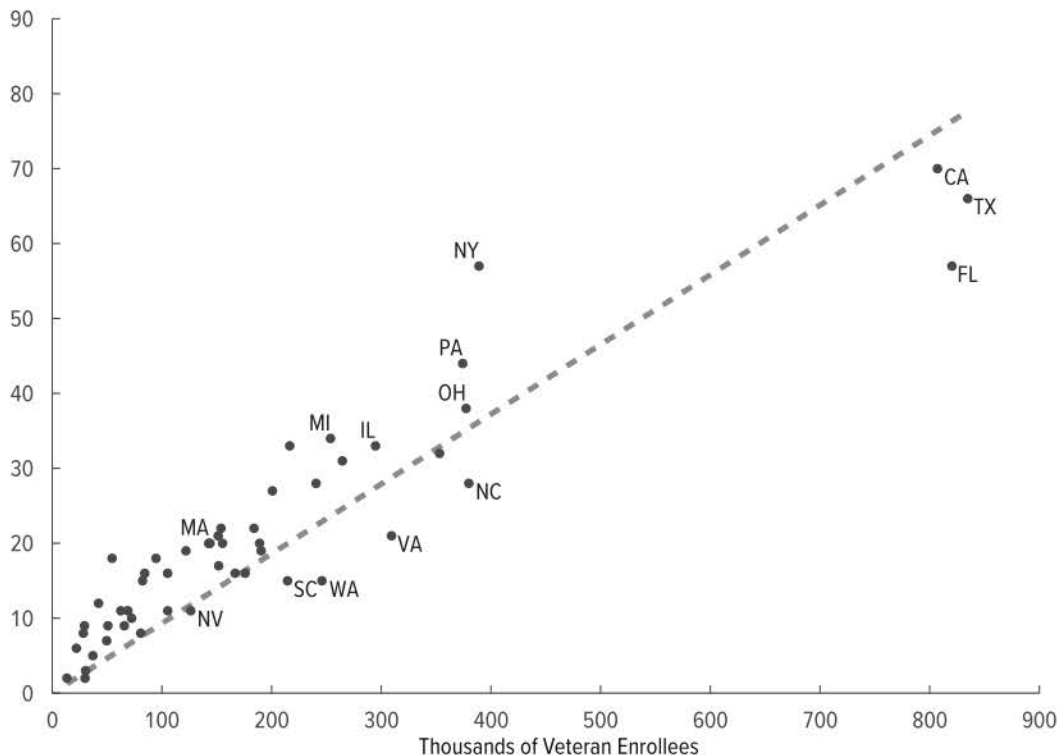
More widespread access to outside providers could lead to fewer veterans seeking care at VHA's medical facilities that are meeting patients' needs

37. Although many health care providers use patient satisfaction surveys, research indicates that mortality rates and other technical quality measures are unrelated to patient satisfaction. See Cristobal Young and Xinxiang Chen, "Patients as Consumers in the Market for Medicine: The Halo Effect of Hospitality," *Social Forces*, vol. 99, no. 2 (December 2020), pp. 504–531, <https://dx.doi.org/10.1093/sf/soaa007>; and Joshua J. Fenton and others, "The Cost of Satisfaction: A National Study of Patient Satisfaction, Health Care Utilization, Expenditures, and Mortality," *Archives of Internal Medicine*, vol. 172, no. 5 (March 2012), pp. 405–411, <https://dx.doi.org/10.1001/archinternmed.2011.1662>.

Figure 2.

Number of VHA Facilities and Number of Veteran Enrollees in Each State in Fiscal Year 2019

Number of Major VHA Facilities



On average, states had 8,500 veteran enrollees for each of their facilities in fiscal year 2019 (as shown by the dotted line). But the variation among states was significant. Those below the trend line had more veterans per facility than the nationwide average; states above it had fewer. For example, New York had about the same number of facilities as Florida but less than half the enrollees.

Data source: Congressional Budget Office, using data from the Department of Veterans Affairs. See www.cbo.gov/publication/57257#data.

Facility refers to a VA medical center; a large, freestanding outpatient clinic; or a community-based outpatient facility.

VA = Department of Veterans Affairs; VHA = Veterans Health Administration.

and operating at or under capacity. In those cases, the average cost for the remaining patients would increase because some of the facility costs are fixed. That is, maintaining existing hospitals and tertiary facilities entails high fixed costs regardless of how many veterans use them. Even when clinical staff can be relocated, buildings cannot be. Under VCCP, VHA cannot compel veterans who qualify for community care to use its facilities.

To address the underutilization that may result, the MISSION Act requires VA to develop criteria for selecting which of its facilities to modernize or dispose of to better meet the health care needs of veterans; that Asset

and Infrastructure Review is set to begin in 2022. But if attempts to close underutilized VHA facilities were not successful, increased use of non-VHA providers could mean that VHA maintained expensive hospitals and tertiary facilities that served few veterans. If all current facilities remained open, some would need significant modernization, which tends to be both lengthy and costly; justifying those investments could be difficult for facilities that experienced a decline in use. If veterans' reliance on VHA increased or there were changes in other factors—such as overall economic conditions or VA policy—the underutilization of VHA facilities may be less.

This report was prepared at the request of the Ranking Member of the Senate Committee on Veterans' Affairs. In keeping with the Congressional Budget Office's mandate to provide objective, impartial analysis, the report makes no recommendations.

Elizabeth Bass prepared the report with guidance from David Mosher and Edward G. Keating. Heidi Golding and John Kerman (formerly of CBO) contributed to the analysis. Ann E. Futrell, David Newman, and Rebecca Sachs offered feedback on the draft, and Ron Gecan provided comments on the figures and table.

Carrie Farmer of the RAND Corporation, Sebastian Negrusa of the Workers Compensation Research Institute, and analysts at the Veterans Health Administration commented on an earlier draft. The assistance of external reviewers implies no responsibility for the final product; that responsibility rests solely with CBO.

Jeffrey Kling and Robert Sunshine reviewed the report. Caitlin Verboon edited it, and R. L. Rebach created the graphics and prepared the report for publication. This report is available on CBO's website at www.cbo.gov/publication/57257.

CBO seeks feedback to make its work as useful as possible. Please send any comments to communications@cbo.gov.



Phillip L. Swagel
Director



Comparing Veterans Affairs and Private Sector Perioperative Outcomes After Noncardiac Surgery

Elizabeth L. George, MD, MSc; Nader N. Massarweh, MD, MPH; Ada Youk, PhD; Katherine M. Reitz, MD, MS; Myrick C. Shinall Jr, MD, PhD; Rui Chen, MS; Amber W. Trickey, PhD, MS, CPH; Patrick R. Varley, MD, MS; Jason Johanning, MD, MS; Paula K. Shireman, MD, MS, MBA; Shipra Arya, MD, SM; Daniel E. Hall, MD, MDiv, MHSc

IMPORTANCE Recent legislation facilitates veterans' ability to receive non-Veterans Affairs (VA) surgical care. However, contemporary data comparing the quality and safety of VA and non-VA surgical care are lacking.

OBJECTIVE To compare perioperative outcomes among veterans treated in VA hospitals with patients treated in private-sector hospitals.

DESIGN, SETTING, AND PARTICIPANTS This cohort study took place across 8 noncardiac specialties in the Veterans Affairs Surgical Quality Improvement Program (VASQIP) and American College of Surgeons National Surgical Quality Improvement Program (NSQIP) from January 1, 2015, through December 31, 2018. Multivariable log-binomial modeling was used to evaluate the association between VA vs private sector care settings and 30-day mortality. Unmeasured confounding was quantified using the E-value. Patients 18 years and older undergoing a noncardiac procedures were included.

EXPOSURES Surgical care in either a VA or private sector setting.

MAIN OUTCOMES AND MEASURES Primary outcome was 30-day postoperative mortality. Secondary outcome was failure to rescue, defined as a postoperative death after a complication.

RESULTS Of 3 910 752 operations (3 174 274 from NSQIP and 736 477 from VASQIP), 1 498 984 (92.1%) participants in NSQIP were male vs 678 382 (47.2%) in VASQIP (mean difference, -0.449 [95% CI, -0.450 to -0.448]; $P < .001$), and 441 894 (60.0%) participants in VASQIP were frail or very frail vs 676 525 (21.3%) in NSQIP (mean difference, -0.387 [95% CI, -0.388 to -0.386]; $P < .001$). Overall, rates of 30-day mortality, complications, and failure to rescue were 0.8%, 9.5%, and 4.7%, respectively, in NSQIP ($n = 3 174 274$ operations) and 1.1%, 17.1%, and 6.7%, respectively in VASQIP (736 477) (differences in proportions, -0.003 [95% CI, -0.003 to -0.002]; -0.076 [95% CI, -0.077 to -0.075]; 0.020 [95% CI, 0.018 - 0.021], respectively; $P < .001$). Compared with private sector care, VA surgical care was associated with a lower risk of perioperative death (adjusted relative risk, 0.59 [95% CI, 0.47-0.75]; $P < .001$). This finding was robust in multiple sensitivity analyses performed, including among patients who were frail and nonfrail, with or without complications, and undergoing low and high physiologic stress procedures. These findings were also consistent when year was included as a covariate and in nonparsimonious modeling for patient-level factors. Compared with private sector care, VA surgical care was also associated with a lower risk of failure to rescue (adjusted relative risk, 0.55 [95% CI, 0.44-0.68]). An unmeasured confounder (present disproportionately in NSQIP data) would require a relative risk of 2.78 [95% CI, 2.04-3.68] to obviate the main finding.

CONCLUSIONS AND RELEVANCE VA surgical care is associated with lower perioperative mortality and decreased failure to rescue despite veterans having higher-risk characteristics. Given the unique needs and composition of the veteran population, health policy decisions and budgetary appropriations should reflect these important differences.

JAMA Surg. 2022;157(3):231-239. doi:10.1001/jamasurg.2021.6488
Published online December 29, 2021. Corrected on February 9, 2022.

← Invited Commentary page 239

+ Supplemental content

Author Affiliations: Author affiliations are listed at the end of this article.

Corresponding Author: Daniel E. Hall, MD, MDiv, MHSc, UPMC Presbyterian, 200 Lothrop St, Ste F1281, Pittsburgh, PA 15218 (hallde@upmc.edu).

The Veterans Health Administration (VHA) is the nation's largest integrated health care system providing care to more than 9 million veterans across the United States.¹ Owing in large part to contemporary concerns regarding the timeliness and quality of care in VHA, Congress passed the Veterans Access, Choice and Accountability Act (ie, the Veterans' Choice Program or the "Choice Act") in 2014 increasing veterans' access to private sector care.² More recently, the Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act replaced the Veterans' Choice Program and further relaxed these eligibility requirements.³ While a primary goal of the MISSION Act is to facilitate veterans' access to needed health care services, it is unclear that simply diverting care to the community completely addresses perceived issues regarding timeliness and/or quality.^{4,5} To be consistent with the goals of the MISSION Act, veterans should receive comparable or better care in the private sector. Yet, there are currently no well-delineated methods for comparing surgical quality and safety in VHA vs the private sector.

Prior concerns regarding the quality of care provided at Veterans Affairs (VA) hospitals have resulted in numerous systemwide structural and cultural changes over the years.^{6,7} One specific example was the implementation of the VA National Surgical Quality Improvement Program in 1991 in response to a congressional mandate to evaluate VA surgical care.⁸ Over the past 3 decades, this program (now called the VA Surgical Quality Improvement Program [VASQIP]) has been associated with substantial improvements in the quality and safety of VA surgical care, has become a national standard for surgical quality improvement, and was used as the template for the design of the American College of Surgeons National Quality Surgical Improvement Program (NSQIP) in the private sector.^{7,9-11}

Multiple publications suggest the quality of VA surgical care is comparable with, and in many cases better than, that provided in the private sector.^{4,12-15} With MISSION Act legislation facilitating non-VA surgical care for veterans, contemporaneous data regarding the outcomes of VA surgical care compared with the private sector would help patients and policy makers ensure veterans receive optimal surgical care in

Key Points

Question How do perioperative outcomes compare among veterans treated in Veterans Affairs (VA) hospitals with patients treated in private sector hospitals?

Findings In this national cohort study describing more than 4 million operations, VA surgical care was associated with lower perioperative mortality and decreased failure to rescue.

Meaning In light of recent legislation facilitating veterans' ability to receive non-VA surgical care and given the unique needs and composition of the veteran population, health policy decisions and budgetary appropriations should consider the association between care setting and perioperative outcomes for veterans receiving care within the Veterans Health Administration.

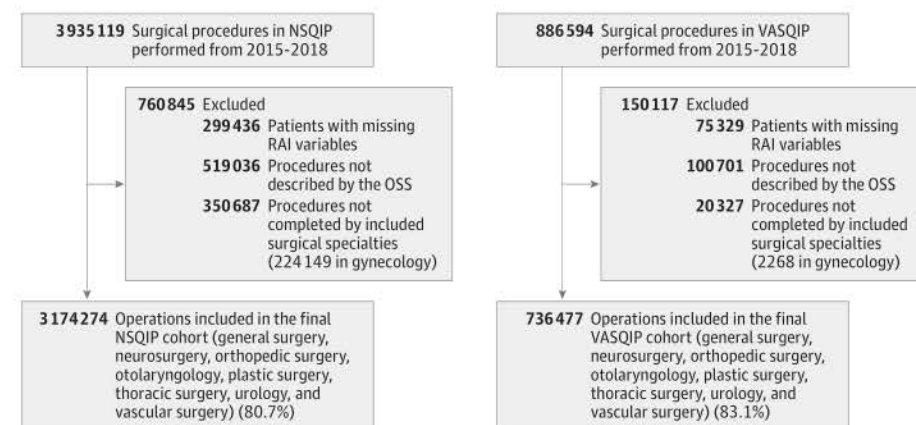
the most appropriate setting. The objective of this study was to compare perioperative outcomes among veterans treated in VA hospitals to patients treated in private sector hospitals using VASQIP and NSQIP as comparable, high-quality, and audited national registries.

Methods

Patient Population

This was a national cohort study of noncardiac surgical procedures in VASQIP and NSQIP.^{16,17} Within both registries, individual patients may have had multiple surgical encounters. Thus, each operation (rather than patient) was the unit of analysis. The Stanford University institutional review board (Stanford, California) and the Veterans Affairs Pittsburgh Healthcare System institutional review board (Pittsburgh, Pennsylvania) determined these retrospective analyses of de-identified data to be exempt from review. The study included all patients 18 years or older who underwent a noncardiac surgical procedure between January 1, 2015, and December 31, 2018, and had available information regarding 30-day mortality (Figure 1). Cardiac surgical cases were excluded from this

Figure 1. Flow Diagram for Creation of American College of Surgeons National Quality Surgical Improvement Program (NSQIP) and Veterans Affairs Surgical Quality Improvement Program (VASQIP) Cohorts



Some individuals may be represented in multiple exclusion categories if, for example, a single individual is missing data for both RAI and OSS. RAI indicates Risk Analysis Index; OSS, Operative Stress Score.

analysis because these cases are not routinely collected by NSQIP and the cardiac data set in the VA system does not contain the variables required to calculate the Risk Analysis Index (RAI) of frailty as described below. Gynecologic procedures were excluded given relatively few were recorded in VASQIP. Demographic and clinical characteristics of included individuals are presented in Table 1. Data on race and ethnicity were collected using the procedures of the VASQIP and NSQIP registries via the electronic health records of participating hospitals. Characteristics of included and excluded patients are provided in eTable 1 in the Supplement. VASQIP and NSQIP data are used for quality improvement and surgical research and the reliability of these registries has been previously been described.^{18,19} Data were hand abstracted by trained local nurses who thoroughly review the entire medical record and abstract preoperative, intraoperative, and postoperative variables based on standardized definitions that are consistent between registries for the variables analyzed in this study.^{16,17}

Frailty

Patient frailty was assessed using the RAI. The RAI is a validated tool for measuring frailty in surgical and nonsurgical populations based on the accumulation of deficits model of frailty.²⁰⁻²³ Greater frailty as measured using the RAI is associated with higher rates of complications, failure to rescue (FTR), nonhome discharge, and short- and long-term mortality.²⁴⁻³¹ Details of the RAI scoring system are included in eTable 2 in the Supplement demonstrating comparable calculations in VASQIP and NSQIP despite subtle differences in definition of weight loss and kidney failure. Higher RAI scores indicate greater frailty, and based on prior work, patients were categorized as robust (RAI ≤ 20), normal (21-29), frail (30-39), and very frail (≥ 40).²¹ Patients with missing variables necessary to calculate a RAI score were excluded from the analysis.

Operative Stress Score

The Operative Stress Score (OSS) was developed using modified Delphi consensus methodology to rate the physiologic stress of 565 surgical procedures according to a common scale that permits stratification across the diverse array of surgical procedures contained within VASQIP and NSQIP.²⁹ Each procedure was rated 1 through 5, with 1 indicating least stress. Based on prior work, we used a 3-level categorization owing to the small number of OSS 1 and OSS 5 procedures in several surgical specialties: low stress (OSS 1-2), moderate stress (OSS 3), and high stress (OSS 4-5).²⁴ If an operation had more than 1 listed procedure, the *Current Procedural Terminology* code with the highest OSS was used. Patients undergoing procedures not defined by the OSS were excluded.

Postoperative Complications

Using the standardized complications abstracted by both VASQIP and NSQIP, we identified the following 30-day Clavien-Dindo grade III-IV complications: an unplanned return to the operating room, acute kidney failure, myocardial infarction, cardiac arrest, pulmonary embolism, stroke, unplanned reintubation, prolonged mechanical ventilation, and septic shock.²⁰

Table 1. Demographic and Clinical Characteristics of the American College of Surgeons NSQIP and VASQIP Registry Cohorts

Characteristic	No. (%) NSQIP (n = 3 174 274)	VASQIP (n = 736 477)
Age, mean (SD), y	57.5 (16.8)	64.0 (11.0)
Male ^a	1 498 984 (47.2)	678 382 (92.1)
Female ^a	1 675 290 (52.8)	58 095 (7.9)
Race and ethnicity		
Non-Hispanic American Indian or Alaska Native	14 944 (0.5)	7644 (1.0)
Non-Hispanic Asian or Pacific Islander	83 142 (2.6)	2741 (0.4)
Non-Hispanic Black	301 728 (9.5)	125 074 (17.0)
Hispanic	241 733 (7.6)	31 687 (4.3)
Non-Hispanic White	2 089 952 (65.8)	501 066 (68.0)
Missing	442 775 (13.9)	68 265 (9.3)
OSS		
1/2	1 700 497 (53.6)	363 918 (49.4)
3	1 253 591 (39.5)	312 891 (42.5)
4/5	220 186 (6.9)	59 668 (8.1)
RAI		
Robust (≤ 20)	1 059 497 (33.4)	35 657 (4.8)
Normal (21-29)	1 438 252 (45.3)	258 926 (35.2)
Frail (30-39)	599 318 (18.9)	367 268 (49.9)
Very frail (≥ 40)	77 207 (2.4)	74 626 (10.1)
RAI, mean (SD)	23.4 (7.9)	31.4 (6.8)
Cases emergent	291 982 (9.2)	43 449 (5.9)
Total 30-d mortality, No. (%)	26 020 (0.8)	8008 (1.1)
Total 30-d complications, No. (%)	299 984 (9.5)	125 816 (17.1)
Failure to rescue, No. (%) ^b	19 936 (6.7)	5918 (4.7)

Abbreviations: NSQIP, National Surgical Quality Improvement Program; OSS, Operative Stress Score; RAI, Risk Analysis Index; VASQIP, Veterans Affairs Surgical Quality Improvement Program.

^a Owing to missing values for sex, proportions are based on n = 3 174 274 for NSQIP and n = 736 477 for VASQIP.

^b Proportions based on total 30-day complications: n = 299 984 for NSQIP and n = 125 816 for VASQIP.

Statistical Analysis

The primary outcome was 30-day postoperative mortality. A secondary outcome was FTR, defined as a postoperative death after a complication. Multivariable log-binomial models were created to evaluate the association between surgical care setting and 30-day mortality because they render the more intuitively interpretable relative risk ratio. Model covariates were selected a priori based on prior work and included the RAI, OSS, procedural urgency (emergency vs elective), and whether the patient experienced a postoperative complication.^{21,23,29,32} Robust standard errors were used to account for clustering within surgical specialties. As in prior work, we used parsimonious models to avoid issues with collinearity and model convergence.^{21,23,29,32} Collinearity was further assessed with variance inflation factors. The RAI (capturing patient frailty) is effectively a composite variable including information about many of the clinical (eg, comorbid conditions, functional status) and demographic (eg, age and sex) patient-level factors that

would typically be included in a multivariable model. Similarly, the OSS (capturing physiologic stress) helps to stratify diverse procedures in different specialties on a common scale of physiologic stress and risk. Hierarchical modeling controlling for the within- and between-hospital variability was not feasible because NSQIP does not provide a hospital-level identifier, and we did not account for surgeon-level clustering because neither data set provides a unique clinician identifier. Repeated procedures on the same patient were also not accounted for owing to the lack of a unique patient identifier. Because log-binomial models do not render direct estimates of the adjusted risk reduction, we refit the model with logistic regression to estimate the adjusted risk difference.

Post hoc sensitivity analyses were performed to evaluate the robustness of our study findings to varying assumptions regarding differences in the types of surgical care provided and the patient populations treated in VA and private sector settings. These included (1) separately evaluating lower-stress procedures (OSS 1, 2, and 3) and higher-stress procedures (OSS 4 and 5); (2) stratifying by frailty status (RAI <30 vs RAI ≥30); and (3) separately evaluating patients with and without complications for FTR. We first added interaction terms to our models to assess differences in the association between mortality and surgical care setting by OSS category, frailty status, and complications, respectively. We then looked at the results stratified by these groups to assess the patterns of difference. Separate sensitivity analyses also evaluated the association of adding year as a covariate to address secular trends in quality improvement, including OSS as a 5-level covariate to adjust for procedure mix more granularly, and stratifying by surgical specialty to ensure consistency across specialties. Additionally, a subset analysis of male individuals older than 65 years undergoing elective procedures was performed. A nonparsimonious model including patient-level factors (age, sex, American Society of Anesthesiologists class, presence of heart disease, chronic obstructive pulmonary disease, stroke history, diabetes, chronic kidney disease, functional status, and nutrition status) as described by Massarweh et al³³ rather than the composite variable of frailty as measured by the RAI was also evaluated. Finally, an E-value was calculated to identify the possible effect of unmeasured confounders. The E-value describes “the minimum strength of association that an unmeasured confounder would need to have on both the treatment and the outcome to fully explain away a specific treatment-outcome association conditional on the measured covariates.”³⁴ The lower the E-value, the higher the likelihood an unmeasured confounder could account for the observed association. Put differently, when the E-value is low, an unmeasured confounder only needs to exert a small effect to primarily explain the observed association. By comparison, when the E-value is high, the unmeasured confounder would need to exert a much larger effect to fully explain the study findings.

Statistical significance was assessed at 2-sided $P < .05$. Analyses were completed March 12, 2021, with Stata version 16.0 (StataCorp). This study adhered to the Strengthening of Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline.³⁵

Results

The cohort included 3 174 274 operations in NSQIP and 736 477 operations in VASQIP (Table 1). Patients in VASQIP were older (VASQIP: mean [SD] age, 64.0 [11.0 years]; NSQIP: mean [SD] age, 57.5 [16.8] years; $P < .001$) and predominantly male (92.1% vs 47.2%; mean difference, -7.97 [95% CI, -7.99 to 7.95]). The mean RAI score was higher ($P < .001$) in VASQIP (31.4 [6.8]) compared with NSQIP (23.4 [7.9]) and there was also a greater percentage of frail and very frail patients in VASQIP (49.9% and 10.1%, respectively; mean difference, -0.310 [95% CI, -0.311 to -0.309]; $P < .001$) compared with NSQIP (18.9% and 2.4%, respectively; mean difference, -0.077 [95% CI, -0.078 to -0.076]; $P < .001$). The distribution of OSS was similar between the 2 registries with more than 90% of cases categorized as OSS 1, 2, or 3 (mean difference, 0.012 [95% CI, 0.011 - 0.013]; $P = .79$). NSQIP cases were more frequently emergent (9.2% vs 5.9%; mean difference, 0.033 [95% CI, 0.032 - 0.034]; $P < .001$). Overall, unadjusted 30-day mortality (0.8% vs 1.1%; mean difference, -0.003 [95% CI, -0.003 to -0.002]; $P < .001$) and FTR (4.7% vs 6.7%; mean difference, 0.020 [95% CI, 0.018 - 0.021]; $P < .001$) were significantly lower in NSQIP. Similarly, unadjusted 30-day complications were significantly lower in NSQIP (9.5% vs 17.1%; mean difference, -0.076 [95% CI, -0.077 to -0.075 ; $P < .001$).

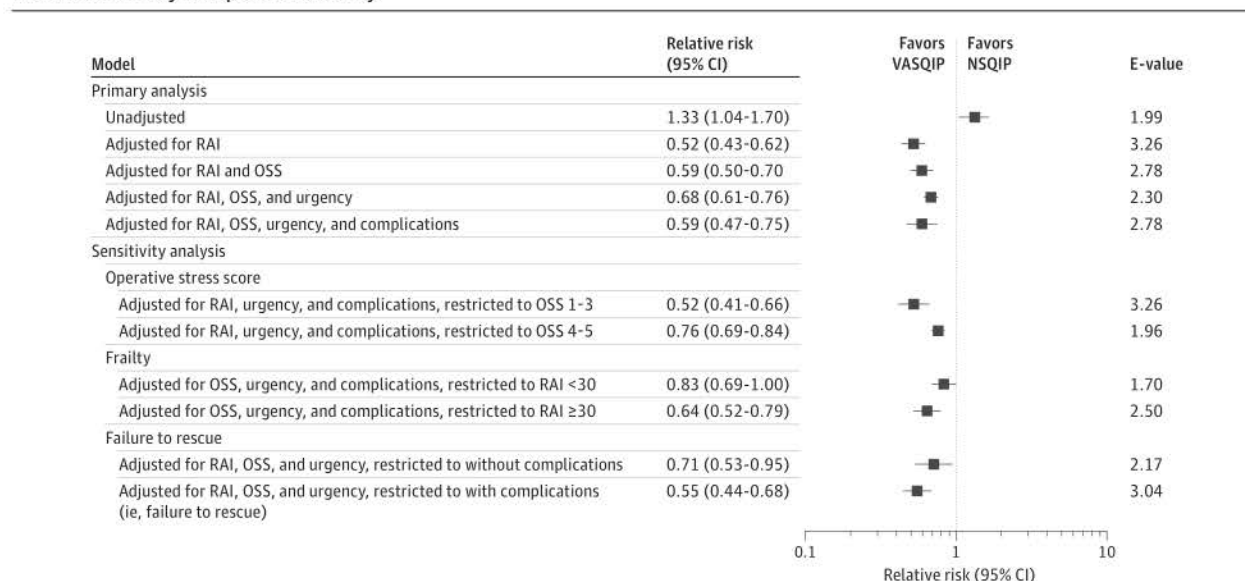
Compared with private sector surgical care, the adjusted risk of 30-day mortality was approximately 40% lower for VA surgical care (adjusted relative risk [aRR], 0.59 [95% CI, 0.47 - 0.74]) (Table 2), corresponding with an estimated adjusted absolute risk reduction of 0.46% (95% CI, 0.32%-0.60%). In sensitivity analyses, our findings were generally robust, with the main exception among nonfrail patients: VA surgical care was associated with a significantly lower risk of death among frail and very frail patients (aRR, 0.64 [95% CI, 0.52 - 0.79]) but not among nonfrail patients (aRR, 0.83 [95% CI, 0.69 - 1.00]) (Figure 2). However, these associations of surgical care setting with 30-day mortality by frailty groups were not statistically different (interaction $P = .11$). Additionally, VA surgical care was associated with a lower risk of mortality among those who underwent low physiologic stress operations (aRR, 0.52 [95% CI, 0.41 - 0.66]) and a lower risk of FTR (aRR, 0.55 [95% CI, 0.44 - 0.68]). These associations of surgical care setting with 30-day mortality were statistically different between operative stress groups (interaction $P = .01$) and the presence/lack of complications (interaction $P < .001$).

Further sensitivity analyses demonstrated similar relative risk reduction associated with VA surgical care when the multivariable model was run with a fully expanded 5-level OSS (aRR, 0.59 [95% CI, 0.47 - 0.74]), when year was included as a covariate (aRR, 0.59 [95% CI, 0.47 - 0.74]), and when a subset analysis of male individuals older than 65 years undergoing elective procedures was performed (aRR, 0.51 [95% CI, 0.43 - 0.60]). In a nonparsimonious model adjusting for patient-level factors rather than frailty, the relative risk of 30-day mortality was more than 50% lower for VA surgical care (aRR, 0.46 [95% CI, 0.38 - 0.57]). Additionally, the association of VA surgical care was consistent across specialties; for instance, among the largest 3 included specialties: general

Table 2. Results of the Full Parsimonious Multivariable Model Comparing Veterans Affairs Surgical Care to the Private Sector

Variable	30-d Mortality, relative risk (95% CI)	β Coefficient (95% CI)	P value
Program			
NSQIP	1 [Reference]	1 [Reference]	NA
VASQIP	0.59 (0.47 to 0.74)	-0.53 (-0.77 to 0.30)	<.001
RAI			
Normal (21-29)	1 [Reference]	1 [Reference]	NA
Robust (<20)	0.26 (0.20 to 0.33)	-1.35 (-1.61 to 1.10)	<.001
Frail (30-39)	2.87 (2.32 to 3.56)	1.05 (0.84 to 1.27)	<.001
Very frail (>40)	6.55 (4.24 to 10.11)	1.88 (1.45 to 2.31)	<.001
OSS			
1/2	1 [Reference]	1 [Reference]	NA
3	2.21 (1.56 to 3.15)	0.79 (0.44 to 1.15)	<.001
4/5	2.88 (2.26 to 3.66)	1.06 (0.82 to 1.30)	<.001
Emergency			
No	1 [Reference]	1 [Reference]	NA
Yes	2.79 (2.32 to 3.34)	1.02 (0.84 to 1.21)	<.001
Complication			
No	1 [Reference]	1 [Reference]	NA
Yes	11.02 (8.91 to 13.62)	2.40 (2.19 to 2.61)	<.001

Abbreviations: NA, not applicable; NSQIP, National Surgical Quality Improvement Program; OSS, Operative Stress Score; RAI, Risk Analysis Index; VASQIP, Veterans Affairs Surgical Quality Improvement Program.

Figure 2. Serial Modeling and Subgroup Analysis of the Association Between Surgical Care Setting (ie, Veterans Affairs vs Private Sector) With Risk of 30-Day Perioperative Mortality

E-values quantifying the minimum strength of association that an unmeasured confounder would need to have with both the exposure and the outcome to eliminate the statistical significance of the observed main effect are also

presented. NSQIP indicates National Surgical Quality Improvement Program; RAI, Risk Analysis Index; OSS, Operative Stress Score; VASQIP, Veterans Affairs Surgical Quality Improvement Program.

surgery (aRR, 0.71 [95% CI, 0.68-0.73]), orthopedic surgery (aRR, 0.50 [95% CI, 0.47-0.54]), and vascular surgery (aRR, 0.45 [95% CI, 0.43-0.48]).

We calculated E-values to quantify the possible association of unmeasured confounders. If unmeasured confounding were present disproportionately in the NSQIP population, the unmeasured confounder would require a relative risk of 2.78 (95% CI, 2.04-3.68) (in the direction opposite of our current finding) to eliminate the significant difference in our main finding for 30-day mortality.

Discussion

Throughout the past decade, major legislation has relaxed eligibility criteria for veterans to access nonurgent care outside of the VA and more veteran health care has shifted to the private sector.^{2,3,5,36} However, numerous studies comparing the quality of preventive services, primary care, mental health care, oncology, posttransplant care, and surgical specialties suggest VHA performs better, comparable with, or less vari-

ably relative to the private sector.^{4,6,12-14,37-42} Because surgical care is both high risk and costly, understanding the most appropriate surgical care setting for veterans is critical for informing current and future health policy decisions and budget appropriations.⁴³ In this context, our study supports 2 important conclusions. First, VA surgical care is associated with a lower risk of perioperative death—a finding that was robust to varying assumptions about the data. Second, this finding is consistent among patients who experienced complications (ie, lower FTR for VA surgical care). Taken together, this suggests VA hospitals may be best equipped to care for the unique perioperative needs and risk profiles of veterans.

VASQIP has been credited with substantial reductions in postoperative morbidity and mortality across VA hospitals and served as the template for NSQIP in the private sector.^{7,10,11,17} Despite substantial improvements in perioperative outcomes nationwide and the similarity of 2 data sources, no recent study has compared the quality and safety of VA and private sector surgical care.^{44,45} Owing to statutory limitations about who can receive care in VA hospitals, no study will ever fully address the counterfactual implicit in this research question—namely the outcomes of veterans receiving surgical care in the private sector compared with nonveterans receiving surgical care in VA hospitals. Nonetheless, our current work can help address a relevant policy question central to the MISSION Act: to what extent should nonurgent veteran specialty care occur in the private sector? We believe an absolute risk reduction of 0.46% is clinically significant given the trajectory of quality improvement in 30-day mortality. The mortality event rate in surgery is intentionally low, and thus small differences reflect real changes in quality. For instance, since the inception of VASQIP data collection in 1991, the 30-day mortality of major surgery in the VA decreased from 3.1% in 1991 to 2.3% in 2000 to the 1.0% it is today, taking almost 4 decades of quality improvement efforts to make incremental yet imperative improvements in surgical outcomes.⁷

Veterans in this cohort were older and more frail than patients in NSQIP—characteristics associated with a greater perioperative risk.^{21,24,29,32,45} It is known that veterans are in general older, have lower income, are less educated, experience more psychiatric illness and substance use problems, and are sicker.⁴⁶⁻⁵⁰ The VHA has long been considered a safety net because, as a group, veterans have unique psychological and economic needs along with a high burden of comorbid conditions.⁴⁹ In our adjusted analysis, VA surgical care was associated with a decreased risk of perioperative death compared with the private sector—a consistent finding across different contexts in our sensitivity analyses. The significantly lower risk of death for frail and very frail veterans suggests VA hospitals may have developed strategies to mitigate the increased perioperative risk.

One particular aspect of VA surgical care deserving careful consideration is complication rescue. Throughout the past 15 years, postoperative morbidity, mortality, and FTR following noncardiac surgery have improved across VA hospitals.⁴⁵ The reasons for these systemwide improvements are likely multifactorial. For instance, the VHA has introduced intraoperative team training in more than 100 facilities.⁵¹ This is an adaptation of the aviation industry's crew resource management theory that encourages working as a team in the operating room, psycholog-

ical safety, and the use of preoperative and postoperative briefing checklists. Facilities where training was implemented demonstrated a dose-response relationship between decreased surgical mortality and the amount of team training received with a near 50% decrease in annual mortality compared with facilities without training.⁵¹ The VHA has also widely implemented clinical decision support systems capable of rapidly assimilating a variety of data streams to decrease time to recognition and response to critical events in the perioperative period, and established the National Center for Collaborative Healthcare Innovation to leverage predictive analytics, artificial intelligence, and clinical decision support to improve veteran care.⁵²

In addition to focusing on the specific delivery of surgical and perioperative care, the VA recognizes how surgical treatment is complicated by mental health, addiction treatment, transportation, and lodging considerations, and has thus consistently invested in programs to provide more holistic care to veterans across the continuum of care in ways that are likely either inadequately integrated or difficult to recapitulate in private sector settings.⁵

Limitations

There are several important limitations to consider. It is possible the observed association between better perioperative outcomes and surgical care at VA hospitals is owing to unmeasured confounders. However, it is unlikely that such unmeasured confounders would both (1) occur disproportionately in NSQIP and (2) represent the relative risk of 2.78 needed to eliminate our main finding. One possible unmeasured confounder is that both registries do not provide information about the indication for surgery (metastatic colon cancer vs diverticulitis could use the same *Current Procedural Terminology* code). Additionally, NSQIP has variables for both elective and emergent cases, allowing a third class for urgent, whereas VASQIP does not allow differentiating urgent from elective, and it is known that urgent cases have worse outcomes than elective procedures in NSQIP.⁵³ The reason we used a more parsimonious model was to ensure model convergence, but even when a nonparsimonious model was used, the results nevertheless favored VASQIP. VASQIP is a mandatory surgical quality improvement program for all VA hospitals whereas participation in NSQIP is voluntary. As such, it is unclear how well findings from NSQIP hospitals generalize to non-NSQIP hospitals. However, 2 recent studies have demonstrated no difference in hospital outcomes based on NSQIP participation. Both registries only capture a standardized set of complications; therefore, there might be differences in procedure-specific complications that might differ across hospitals owing to case mix and failure to rescue rates may differ depending on how aggressive hospitals code their complications to increase the denominator. There are no hospital factors captured in either data set, eg, teaching hospital status, for inclusion as covariates and NSQIP does not provide a hospital or clinician identifier and so we were not able to fully address the clustering association of patients treated by the same surgeon and/or at the same hospital. Cardiac surgery cases were excluded and thus no inferences can be made about cardiac surgery. To ensure the greatest analytic parity, we excluded gynecologic procedures from this analysis given the relatively few gynecologic procedures recorded in VASQIP compared with NSQIP. Nonetheless, the veterans included in VASQIP were

predominantly male, suggesting future work will likely be required to better characterize the quality of surgical care for women veterans in VHA. Despite this limitation, similarities between these 2 programs make NSQIP a relevant (if not best available) comparator for VASQIP. We acknowledge that the ideal comparison would be veterans receiving care at VA hospitals vs non-VA hospitals, but data that identifies patients as veterans are not available in NSQIP. Finally, no inferences about the timeliness or access to care should be made from this study as neither NSQIP nor VASQIP provide these data.

Conclusions

Although recent legislative actions and lay media portrayals of VHA care facilitate and sometimes encourage veterans to

seek medical treatment in the private sector, we demonstrate that postoperative mortality and FTR is significantly lower in VA hospitals compared with the private sector.^{36,54} These findings challenge the assumption that shifting care to the private sector can improve timeliness of surgical care without diminishing its quality. Veterans are a unique patient population that benefit from the tailored care processes the VHA has developed, and it could be difficult to replicate this in the private sector. Further, these processes could become at risk within the VHA should private sector diversion continue to reduce VHA utilization and, by extension, funding. These findings are relevant not only to individual veterans choosing between VA and private sector care, but also to stakeholders making broader health policy decisions and budgetary appropriations. Future decisions should reflect these important differences in the quality and safety of surgical care.

ARTICLE INFORMATION

Accepted for Publication: October 10, 2021.

Published Online: December 29, 2021.
doi:10.1001/jamasurg.2021.6488

Correction: This article was corrected on February 9, 2022, to fix a reversal of sample sizes in the Results section of the Abstract.

Author Affiliations: Division of Vascular Surgery, Stanford University School of Medicine, Stanford, California (George, Arya); Center for Innovation to Implementation, VA Palo Alto Health Care System, Menlo Park, California (George); Stanford-Surgery Policy Improvement Research & Education Center, Stanford University School of Medicine, Stanford, California (George, Chen, Trickey, Arya); Center for Innovations in Quality, Effectiveness, and Safety, Michael E. DeBakey Veterans Affairs Medical Center, Houston, Texas (Massarweh); Michael E. DeBakey Department of Surgery, Baylor College of Medicine, Houston, Texas (Massarweh); Section of Health Services Research, Department of Medicine, Baylor College of Medicine, Houston, Texas (Massarweh); Center for Health Equity Research and Promotion, Veterans Affairs Pittsburgh Healthcare System, Pittsburgh, Pennsylvania (Youk, Hall); Department of Biostatistics, Graduate School of Public Health, University of Pittsburgh, Pittsburgh, Pennsylvania (Youk); Department of Surgery, University of Pittsburgh, Pittsburgh, Pennsylvania (Reitz, Hall); Department of Surgery, Vanderbilt University Medical Center, Nashville, Tennessee (Shinall); Department of Surgery, University of Wisconsin, Madison (Varley); Department of Surgery, University of Nebraska Medical Center, Omaha (Johanning); Nebraska Western Iowa Veterans Affairs Health System, Omaha (Johanning); Department of Surgery, University of Texas Health San Antonio, San Antonio (Shireman); South Texas Veterans Health Care System, San Antonio (Shireman); Surgical Service Line, Veterans Affairs Palo Alto Healthcare System, Palo Alto, California (Arya); Wolff Center, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania (Hall); Geriatric Research Educational and Clinical Center, Veterans Affairs Pittsburgh Healthcare System, Pittsburgh, Pennsylvania (Hall).

Author Contributions: Drs Hall and Youk had full access to all of the data in the study and take

responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: George, Massarweh, Shinall, Johanning, Shireman, Arya, Hall.

Acquisition, analysis, or interpretation of data: George, Massarweh, Youk, Reitz, Shinall, Chen, Trickey, Varley, Shireman, Arya, Hall.

Drafting of the manuscript: George, Massarweh, Reitz, Arya, Hall.

Critical revision of the manuscript for important intellectual content: All authors.

Statistical analysis: George, Massarweh, Youk, Reitz, Chen, Trickey, Hall.

Obtained funding: Shireman, Hall.

Administrative, technical, or material support: Johanning, Arya, Hall.

Supervision: Arya, Hall.

Conflict of Interest Disclosures: Dr George reported receiving salary support from the Palo Alto Veterans Health Care system as part of a Veterans Affairs Center for Innovation to Implementation research fellowship during the conduct of the study. Dr Massarweh reported receiving grants from the Veterans Affairs Office of Research and Development. Dr Reitz reported grants from National Heart, Lung, and Blood Institute and the National Institute on Aging during the conduct of the study. Dr Shinall reported grants from the National Cancer Institute during the conduct of the study. Dr Johanning is managing member of and has a patent to FUTUREASSURE, which holds intellectual property for frailty assessment. Dr Shireman reported receiving grants from the National Institutes of Health and Veterans Health Administration and salary support from the University of Texas Health San Antonio and the South Texas Veterans Health Care System during the conduct of the study. Dr Arya reported receiving grants from the Veterans Affairs Office of Research and Development and Center for Innovation to Implementation during the conduct of the study. Dr Hall reported grants from Veterans Affairs Office of Research and Development and the National Institutes of Health during the conduct of the study; has a consulting agreement with FUTUREASSURE outside the submitted work. No other disclosures were reported.

Funding/Support: This research was supported by the US Department of Veterans Affairs; the Veterans Health Administration; the Office of

Research and Development; grants I21HX-002345 and XVA 72-909 (Dr. Hall), grant CIN 13-413 (Dr Massarweh), and Veterans Affairs Center for Innovation to Implementation research fellowship funding (Dr George) from Health Services Research and Development; grant 5R03AG050930 (Dr Arya) from the National Institute on Aging, NIH; grant K12CA090625 (Dr Shinall) from the National Cancer Institute, NIH; and grant U01 TRO02393 (Drs Hall and Shireman) from the National Center for Advancing Translational Sciences and the Office of the Director; grant 5T32HL0098036 from the National Heart, Lung, and Blood Institute (Dr Reitz), and L30 AG064730 National Institutes of Health (Dr Reitz).

Role of the Funder/Sponsor: The funding sources had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Disclaimer: The opinions expressed here are those of the authors and do not necessarily reflect the position of the US Department of Veterans Affairs or the US government.

Meeting Presentation: Portions of these data were presented at the 2021 Association of VA Surgeons; April 25-26, 2021; virtual meeting.

REFERENCES

1. US Department of Veterans Affairs. Veterans Health Administration: about VHA. Accessed November 25, 2020. <https://www.va.gov/health/aboutvha.asp>
2. Veterans Access, Choice, and Accountability Act of 2014, HR 3230, 113th Cong (2013-2014). Pub L No. 113-146. Accessed June 11, 2020.
3. Veterans Community Care Program. *Federal Register*. Published June 5, 2019. Accessed November 2, 2020. <https://www.federalregister.gov/documents/2019/06/05/2019-11575/veterans-community-care-program>
4. Penn M, Bhatnagar S, Kuy S, et al. Comparison of wait times for new patients between the private sector and United States Department of Veterans Affairs medical centers. *JAMA Netw Open*. 2019;2(1):e187096-e187096. doi:10.1001/jamanetworkopen.2018.7096
5. Massarweh NN, Itani KMF, Morris MS. The VA MISSION Act and the Future of veterans' access to

- quality health care. *JAMA*. 2020;324(4):343-344. doi:10.1001/jama.2020.4505
6. Jha AK, Perlin JB, Kizer KW, Dudley RA. Effect of the transformation of the Veterans Affairs Health Care System on the quality of care. *N Engl J Med*. 2003;348(22):2218-2227. doi:10.1056/NEJMsa021899
 7. Khuri SF, Daley J, Henderson WG. The comparative assessment and improvement of quality of surgical care in the Department of Veterans Affairs. *Arch Surg*. 2002;137(1):20-27. doi:10.1001/archsurg.137.1.20
 8. Khuri SF, Daley J, Henderson W, et al; National VA Surgical Quality Improvement Program. The Department of Veterans Affairs' NSQIP: the first national, validated, outcome-based, risk-adjusted, and peer-controlled program for the measurement and enhancement of the quality of surgical care. *Ann Surg*. 1998;228(4):491-507. doi:10.1097/0000658-199810000-00006
 9. Birkmeyer JD, Shahian DM, Dimick JB, et al. Blueprint for a new American College of Surgeons: National Surgical Quality Improvement Program. *J Am Coll Surg*. 2008;207(5):777-782. doi:10.1016/j.jamcollsurg.2008.07.018
 10. Khuri SF, Henderson WG, Daley J, et al; Principal Site Investigators of the Patient Safety in Surgery Study. The patient safety in surgery study: background, study design, and patient populations. *J Am Coll Surg*. 2007;204(6):1089-1102. doi:10.1016/j.jamcollsurg.2007.03.028
 11. Khuri SF, Henderson WG, Daley J, et al; Principal Investigators of the Patient Safety in Surgery Study. Successful implementation of the Department of Veterans Affairs' National Surgical Quality Improvement Program in the private sector: the Patient Safety in Surgery study. *Ann Surg*. 2008;248(2):329-336. doi:10.1097/SLA.0b013e3181823485
 12. Shekelle PG, Asch S, Glassman P, Matula S, Trivedi A, Miale-Lye I. *Comparison of Quality of Care in VA and Non-VA Settings: A Systematic Review*. Department of Veterans Affairs (US); 2010. Accessed June 11, 2020. <https://www.ncbi.nlm.nih.gov/books/NBK49108/>
 13. Trivedi AN, Matula S, Miale-Lye I, Glassman PA, Shekelle P, Asch S. Systematic review: comparison of the quality of medical care in Veterans Affairs and non-Veterans Affairs settings. *Med Care*. 2011;49(1):76-88. doi:10.1097/MLR.0b013e3181f53575
 14. O'Hanlon C, Huang C, Sloss E, et al. Comparing VA and non-VA quality of care: a systematic review. *J Gen Intern Med*. 2017;32(1):105-121. doi:10.1007/s11606-016-3775-2
 15. Charlton ME, Mengeling MA, Schlichting JA, et al. Veteran use of health care systems in rural states: comparing VA and non-VA health care use among privately insured veterans under age 65. *J Rural Health*. 2016;32(4):407-417. doi:10.1111/jrh.12206
 16. Raval MV, Pawlik TM. Practical guide to surgical data sets: National Surgical Quality Improvement Program (NSQIP) and pediatric NSQIP. *JAMA Surg*. 2018;153(8):764-765. doi:10.1001/jamasurg.2018.0486
 17. Massarweh NN, Kaji AH, Itani KMF. Practical guide to surgical data sets: Veterans Affairs Surgical Quality Improvement Program (VASQIP). *JAMA Surg*. 2018;153(8):768-769. doi:10.1001/jamasurg.2018.0504
 18. Davis CL, Pierce JR, Henderson W, et al. Assessment of the reliability of data collected for the Department of Veterans Affairs national surgical quality improvement program. *J Am Coll Surg*. 2007;204(4):550-560. doi:10.1016/j.jamcollsurg.2007.01.012
 19. Lawson EH, Louie R, Zingmond DS, et al. A comparison of clinical registry versus administrative claims data for reporting of 30-day surgical complications. *Ann Surg*. 2012;256(6):973-981. doi:10.1097/SLA.0b013e31826b4c4f
 20. Hall DE, Arya S, Schmid KK, et al. Development and initial validation of the Risk Analysis Index for measuring frailty in surgical populations. *JAMA Surg*. 2017;152(2):175-182. doi:10.1001/jamasurg.2016.4202
 21. Arya S, Varley P, Youk A, et al. Recalibration and external validation of the Risk Analysis Index: a surgical frailty assessment tool. *Ann Surg*. 2019;272(6):996-1005. doi:10.1097/SLA.0000000000003276
 22. Varley PR, Borrebach JD, Arya S, et al. Clinical utility of the Risk Analysis Index as a prospective frailty screening tool within a multi-practice, multi-hospital integrated healthcare system. *Ann Surg*. 2021;274(6):e1230-e1237. doi:10.1097/SLA.0000000000003808
 23. Shah R, Borrebach JD, Hodges JC, et al. Validation of the Risk Analysis Index for Evaluating Frailty in Ambulatory Patients. *J Am Geriatr Soc*. 2020;68(8):1818-1824. doi:10.1111/jgs.16453
 24. George EL, Hall DE, Youk A, et al. Association between patient frailty and postoperative mortality across multiple noncardiac surgical specialties. *JAMA Surg*. 2021;156(1):e205152. doi:10.1001/jamasurg.2020.5152
 25. Arya S, Kim SI, Duwayri Y, et al. Frailty increases the risk of 30-day mortality, morbidity, and failure to rescue after elective abdominal aortic aneurysm repair independent of age and comorbidities. *J Vasc Surg*. 2015;61(2):324-331. doi:10.1016/j.jvs.2014.08.115
 26. Arya S, Long CA, Brahmabhatt R, et al. Preoperative frailty increases risk of nonhome discharge after elective vascular surgery in home-dwelling patients. *Ann Vasc Surg*. 2016;35:19-29. doi:10.1016/j.avsg.2016.01.052
 27. George EL, Chen R, Trickey AW, et al. Variation in center-level frailty burden and the impact of frailty on long-term survival in patients undergoing elective repair for abdominal aortic aneurysms. *J Vasc Surg*. 2020;71(1):46-55.e4. doi:10.1016/j.jvs.2019.01.074
 28. McIsaac DI, Bryson GL, van Walraven C. Association of frailty and 1-year postoperative mortality following major elective noncardiac surgery: a population-based cohort study. *JAMA Surg*. 2016;151(6):538-545. doi:10.1001/jamasurg.2015.5085
 29. Shinall MC Jr, Arya S, Youk A, et al. Association of preoperative patient frailty and operative stress with postoperative mortality. *JAMA Surg*. 2020;155(1):e194620-e194620. doi:10.1001/jamasurg.2019.4620
 30. Farhat JS, Velanovich V, Falvo AJ, et al. Are the frail destined to fail? frailty index as predictor of surgical morbidity and mortality in the elderly. *J Trauma Acute Care Surg*. 2012;72(6):1526-1530. doi:10.1097/TA.0b013e3182542fab
 31. Suskind AM, Walter LC, Jin C, et al. Impact of frailty on complications in patients undergoing common urological procedures: a study from the American College of Surgeons National Surgical Quality Improvement database. *BJU Int*. 2016;117(5):836-842. doi:10.1111/bju.13399
 32. Shah R, Attwood K, Arya S, et al. Association of frailty with failure to rescue after low-risk and high-risk inpatient surgery. *JAMA Surg*. 2018;153(5):e180214. doi:10.1001/jamasurg.2018.0214
 33. Massarweh NN, Anaya DA, Kougiass P, Bakaeen FG, Awad SS, Berger DH. Variation and impact of multiple complications on failure to rescue after inpatient surgery. *Ann Surg*. 2017;266(1):59-65. doi:10.1097/SLA.0000000000001917
 34. VanderWeele TJ, Ding P. Sensitivity analysis in observational research: introducing the E-Value. *Ann Intern Med*. 2017;167(4):268-274. doi:10.7326/M16-2607
 35. von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP; STROBE Initiative. The Strengthening of Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. *Lancet*. 2007;370(9596):1453-1457. doi:10.1016/S0140-6736(07)61602-X
 36. Vantage Point. VA MISSION Act Making A Difference for Veterans. Published January 21, 2020. Accessed December 28, 2020. <https://www.blogs.va.gov/VAntage/70656/va-mission-act-making-difference-veterans/>
 37. Matula SR, Trivedi AN, Miale-Lye I, Glassman PA, Shekelle P, Asch S. Comparisons of quality of surgical care between the US Department of Veterans Affairs and the private sector. *J Am Coll Surg*. 2010;211(6):823-832. doi:10.1016/j.jamcollsurg.2010.09.001
 38. Keating NL, Landrum MB, Lamont EB, et al. Quality of care for older patients with cancer in the Veterans Health Administration versus the private sector: a cohort study. *Ann Intern Med*. 2011;154(11):727-736. doi:10.7326/0003-4819-154-11-201106070-00004
 39. Trivedi AN, Grebla RC. Quality and equity of care in the veterans affairs health-care system and in Medicare advantage health plans. *Med Care*. 2011;49(6):560-568. doi:10.1097/MLR.0b013e31820fb0f6
 40. Landrum MB, Keating NL, Lamont EB, et al. Survival of older patients with cancer in the Veterans Health Administration versus fee-for-service Medicare. *J Clin Oncol*. 2012;30(10):1072-1079. doi:10.1200/JCO.2011.35.6758
 41. Eid MA, Barnes JA, Trooboff SW, Goodney PP, Wong SL. A comparison of surgical quality and patient satisfaction indicators between VA hospitals and hospitals near VA hospitals. *J Surg Res*. 2020;255:339-345. doi:10.1016/j.jss.2020.05.071
 42. Cashion W, Gellad WF, Sileanu FE, et al. Source of Post-Transplant Care and Mortality among Kidney Transplant Recipients Dually Enrolled in VA and Medicare. *Clin J Am Soc Nephrol*. 2021;16(3):437-445. doi:10.2215/CJN.10020620
 43. Muñoz E, Muñoz W III, Wise L. National and surgical health care expenditures, 2005-2025. *Ann Surg*. 2010;251(2):195-200. doi:10.1097/SLA.0b013e3181cbcc9a
 44. Hall BL, Hamilton BH, Richards K, Bilimoria KY, Cohen ME, Ko CY. Does surgical quality improve in the American College of Surgeons National Surgical Quality Improvement Program: an evaluation of all participating hospitals. *Ann Surg*. 2009;250(3):363-376. doi:10.1097/SLA.0b013e3181b4148f
 45. Massarweh NN, Kougiass P, Wilson MA. Complications and failure to rescue after inpatient noncardiac surgery in the Veterans Affairs health system. *JAMA Surg*. 2016;151(12):1157-1165. doi:10.1001/jamasurg.2016.2920
 46. Kazis LE, Ren XS, Lee A, et al. Health status in VA patients: results from the Veterans Health Study. *Am J Med Qual*. 1999;14(1):28-38. doi:10.1177/106286069901400105

47. Wolinsky FD, Coe RM, Mosely RRI II, Homan SM. Veterans' and nonveterans' use of health services: a comparative analysis. *Med Care*. 1985;23(12):1358-1371. doi:10.1097/00005650-198512000-00005

48. Randall M, Kilpatrick KE, Pendergast JF, Jones KR, Vogel WB. Differences in patient characteristics between Veterans Administration and community hospitals. Implications for VA planning. *Med Care*. 1987;25(11):1099-1104. doi:10.1097/00005650-198711000-00008

49. Wilson NJ, Kizer KW. The VA health care system: an unrecognized national safety net. *Health Aff (Millwood)*. 1997;16(4):200-204. doi:10.1377/hlthaff.16.4.200

50. Kazis LE, Miller DR, Clark J, et al. Health-related quality of life in patients served by the Department of Veterans Affairs: results from the Veterans Health Study. *Arch Intern Med*. 1998;158(6):626-632. doi:10.1001/archinte.158.6.626

51. Neily J, Mills PD, Young-Xu Y, et al. Association between implementation of a medical team training program and surgical mortality. *JAMA*. 2010;304(15):1693-1700. doi:10.1001/jama.2010.1506

52. Health IT Analytics. VA launches predictive analytics, clinical decision support center. Published September 19, 2019. Accessed February 27, 2021. <https://healthitanalytics.com/news/va-launches-predictive-analytics-clinical-decision-support-center>

53. Mullen MG, Michaels AD, Mehaffey JH, et al. Risk associated with complications and mortality after urgent surgery vs elective and emergency surgery: implications for defining "quality" and reporting outcomes for urgent surgery. *JAMA Surg*. 2017;152(8):768-774. doi:10.1001/jamasurg.2017.0918

54. Severe report finds V.A. hid waiting lists at hospitals. *The New York Times*. Accessed December 17, 2020. <https://www.nytimes.com/2014/05/29/us/va-report-confirms-improper-waiting-lists-at-phoenix-center.html>

Invited Commentary

Untangling Access and Quality in the VA Health Care System Measuring Black Holes in Observational Studies

Defne Altan, AB; Gregory A. Leya, MD, MBA; David C. Chang, PhD, MBA, MPH

Over the past decade, concerns about delays in the VA system have spurred legislation to make health care outside the VA system more accessible for veterans.¹ As George et al¹ remind us, however, better access to health care does not necessarily result in improved outcomes. By showing that veterans have lower 30-day postoperative mortality in VA hospitals compared with private sector hospitals, they demonstrate the important distinction between quality of care and timeliness of access. George et al should be congratulated for bringing this important policy issue to light, and for reminding us that improving patient outcomes requires attention not only to access to care, but also to quality of care.

There are also several important methodological contributions in this study. Unmeasured confounders are a well-known limitation of observational studies. But like black holes in space, the size and strength of unmeasured confounders can be gauged by how they might affect things around them. An E-value is a novel way of understanding the effects of potential unmeasured confounders in observational studies; it quantifies the minimum strength of association, on the risk ratio scale, that an unmeasured confounder would need to negate the conclusion of the study.² In their study, George et al reported an E-value of 2.78 (95% CI, 2.04-3.68) for their conclusion of better quality in the VA system. To negate this conclusion, unmeasured confounders would need to have

risk ratios of 2.78 or larger (similar to the effect of emergency admissions, risk ratio, 2.79 [95% CI, 2.32-3.34] in their study) and be more common in non-VA hospitals. The E-value gives us comfort that the impact of unmeasured confounders in observational studies is manageable and can help improve the quality as well as the acceptance of observational studies.

A word of methodological caution, however, is in order. While a low failure-to-rescue (FTR) rate is considered to represent good quality, there are 2 ways that this ratio can decrease: the numerator (number of deaths) could decrease, or the denominator (number of complications) could increase. Therefore, a hospital that causes many iatrogenic complications and injuries would inflate their denominator and paradoxically lower their FTR. Even if that hospital could ultimately rescue its patients from death, most patients would probably not consider it to be a good hospital. This misinterpretation could be avoided if we insist on evaluating complication rates in conjunction with FTR rates before drawing conclusions about hospital quality.

As the global economy transitions from manufacturing to service-based industries,³ measuring the quality of professional services has become increasingly important. Health care has made many advances in quality measurement, perhaps more so than any other professional service industry. We should be proud of all the good work we have done, and the George et al study is an excellent example of that progress.

ARTICLE INFORMATION

Author Affiliations: Department of Surgery, Massachusetts General Hospital, Harvard Medical School, Boston.

Corresponding Author: David C. Chang, PhD, MPH, MBA, Department of Surgery, Massachusetts General Hospital, Harvard Medical School, 165 Cambridge St, Ste 403, Boston, MA 02114 (dchang8@mgh.harvard.edu).

Published Online: December 29, 2021.

doi:10.1001/jamasurg.2021.6548

Conflict of Interest Disclosures: None reported.

REFERENCES

1. George EL, Massarweh NN, Youk A, et al. Comparing Veterans Affairs and private sector perioperative outcomes after noncardiac surgery. *JAMA Surg*. Published online December 29, 2021. doi:10.1001/jamasurg.2021.6488

2. VanderWeele TJ, Ding P. Sensitivity analysis in observational research: introducing the E-value. *Ann Intern Med*. 2017;167(4):268-274. doi:10.7326/M16-2607

3. Soubbotina TP. Industrialization and postindustrialization. In: *Beyond Economic Growth: An Introduction to Sustainable Development*. The World Bank; 2004.



Original Investigation | Health Policy

Outcomes of Veterans Treated in Veterans Affairs Hospitals vs Non-Veterans Affairs Hospitals

Jean Yoon, PhD, MHS; Ciaran S. Phibbs, PhD; Michael K. Ong, MD, PhD; Megan E. Vanneman, PhD, MPH; Adam Chow, BA; Andrew Redd, PhD; Kenneth W. Kizer, MD, MPH; Matthew P. Dizon, MD; Emily Wong, MPH, MA; Yue Zhang, PhD

Abstract

IMPORTANCE Many veterans enrolled in the Veterans Affairs (VA) health care system have access to non-VA care through insurance and VA-purchased community care. Prior comparisons of VA and non-VA hospital outcomes have been limited to subpopulations.

OBJECTIVE To compare outcomes for 6 acute conditions in VA and non-VA hospitals for younger and older veterans using VA and all-payer discharge data.

DESIGN, SETTING, AND PARTICIPANTS This cohort study used a repeated cross-sectional analysis of hospitalization records for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), gastrointestinal (GI) hemorrhage, heart failure (HF), pneumonia, and stroke. Participants included VA enrollees from 11 states at VA and non-VA hospitals from 2012 to 2017. Analysis was conducted from July 1, 2022, to October 18, 2023.

EXPOSURES Treatment in VA or non-VA hospital.

MAIN OUTCOME AND MEASURES Thirty-day mortality, 30-day readmission, length of stay (LOS), and costs. Average treatment outcomes of VA hospitals were estimated using inverse probability weighted regression adjustment to account for selection into hospitals. Models were stratified by veterans' age (aged less than 65 years and aged 65 years and older).

RESULTS There was a total of 593 578 hospitalizations and 414 861 patients with mean (SD) age 75 (12) years, 405 602 males (98%), 442 297 hospitalizations of non-Hispanic White individuals (75%) and 73 155 hospitalizations of non-Hispanic Black individuals (12%) overall. VA hospitalizations had a lower probability of 30-day mortality for HF (age ≥ 65 years, -0.02 [95% CI, -0.03 to -0.01]) and stroke (age < 65 years, -0.03 [95% CI, -0.05 to -0.02]; age ≥ 65 years, -0.05 [95% CI, -0.07 to -0.03]). VA hospitalizations had a lower probability of 30-day readmission for CABG (age < 65 years, -0.04 [95% CI, -0.06 to -0.01]; age ≥ 65 years, -0.05 [95% CI, -0.07 to -0.02]), GI hemorrhage (age < 65 years, -0.04 [95% CI, -0.06 to -0.03]), HF (age < 65 years, -0.05 [95% CI, -0.07 to -0.03]), pneumonia (age < 65 years, -0.04 [95% CI, -0.06 to -0.03]; age ≥ 65 years, -0.03 [95% CI, -0.04 to -0.02]), and stroke (age < 65 years, -0.11 [95% CI, -0.13 to -0.09]; age ≥ 65 years, -0.13 [95% CI, -0.16 to -0.10]) but higher probability of readmission for AMI (age < 65 years, 0.04 [95% CI, 0.01 to 0.06]). VA hospitalizations had a longer mean LOS and higher costs for all conditions, except AMI and stroke in younger patients.

CONCLUSIONS AND RELEVANCE In this cohort study of veterans, VA hospitalizations had lower mortality for HF and stroke and lower readmissions, longer LOS, and higher costs for most conditions

(continued)

Key Points

Question How do outcomes compare in Veterans Affairs (VA) hospitals and non-VA hospitals for 6 conditions for veterans aged less than 65 years and veterans 65 years and older?

Findings In this cohort study of 593 578 hospitalizations and 414 861 patients, VA hospitalizations compared with non-VA hospitalizations had significantly lower 30-day mortality for heart failure and stroke, lower 30-day readmission for coronary artery bypass graft, gastrointestinal hemorrhage, heart failure, pneumonia, and stroke, but longer mean length of stay and higher mean costs for most conditions. There were differences by age group.

Meaning These findings suggest that veterans had better outcomes in VA hospitals for some conditions at the expense of higher costs.

+ Supplemental content

Author affiliations and article information are listed at the end of this article.

Open Access. This is an open access article distributed under the terms of the CC-BY License.

Abstract (continued)

compared with non-VA hospitalizations with differences by condition and age group. There were tradeoffs between better outcomes and higher resource use in VA hospitals for some conditions.

JAMA Network Open. 2023;6(12):e2345898. doi:10.1001/jamanetworkopen.2023.45898

Introduction

The Veterans Affairs (VA) health care system is the only national integrated delivery system in the US. Many of the 9 million veterans enrolled in the VA have access to non-VA care through VA-purchased services from community clinicians or concomitant enrollment in insurance programs. The VA has long purchased community care when services could not be provided on site, but the Veterans Access, Choice and Accountability Act (Choice Act) in 2014 followed by the VA Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act in 2018 expanded the criteria to purchase care for veterans experiencing access barriers.^{1,2} The Patient Protection and Affordable Care Act further expanded access to Medicaid for low-income adults, including veterans, in many states beginning in 2014.¹ These policies increased use of non-VA care and decreased use of VA services.^{2,3}

Increased access to non-VA care can lead to better outcomes if patients receive higher-quality or more timely care.⁴ However, studies comparing quality of VA and private clinicians documented process and outcome measures for VA care that were equivalent to or superior to non-VA care for surgical procedures, some hospital care, and preventive care.⁵⁻⁸ Many of these prior studies were limited to older veterans using VA services and older patients using Medicare services, including many nonveterans, due to wide availability of Medicare data.⁸⁻¹⁴ However, the veteran enrollee population is more male and has worse health status, greater disability, and lower incomes compared with the nonveteran population.^{15,16} Moreover, younger veterans are typically not included in comparisons due to a lack of comprehensive data on non-VA use outside of Medicare, which reduces the generalizability of these comparisons. Other studies compared VA and community care purchased by the VA and focused on select subpopulations having a particular condition or receiving a particular procedure.¹⁷⁻²¹

Inpatient care is a core service provided by the VA in 140 hospitals with medical or surgical acute care beds, which range widely in volume and service capabilities. Veterans are like other patients insofar as distance to clinicians and travel time influence their preferred choice of clinicians, especially for inpatient care.²²⁻²⁴ At a time when veterans have more access to non-VA hospital care, it is important to examine differences in outcomes between VA and non-VA hospitals.

This study compared mortality, readmission, length of stay (LOS), and costs of veterans hospitalized in VA and non-VA hospitals for acute myocardial infarction (AMI), coronary artery bypass surgery (CABG), gastrointestinal (GI) hemorrhage, heart failure (HF), pneumonia, and stroke. A lack of data on non-VA utilization often hinders comparisons between VA and non-VA care, but we used a comprehensive data set of VA and non-VA all-payer inpatient care records. No studies to date compared hospital outcomes for veterans of all ages with access to VA care.

Methods

The cohort study was approved by the institutional review boards (IRBs) at Stanford University, University of Utah, and Greater Los Angeles VA with a waiver of consent granted by the IRBs. We followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline for reporting cohort studies.

Study Cohort and Data Sources

We conducted a study using repeated cross-sections of hospitalizations for VA enrollees discharged January 1, 2012 to December 31, 2017. After reviewing availability and policies to request all-payer discharge data for research in all states, we obtained hospitalization records in 11 geographically diverse states (ie, Arizona, California, Connecticut, Florida, Illinois, Louisiana, Massachusetts, Missouri, New York, Pennsylvania, and South Carolina), which allowed linkage between discharge data and VA enrollment data. Our sample of states represented the Northeastern, Southeastern, Midwestern, and Western regions of the US; approximately 38% of VA enrollees live in these states.²⁵

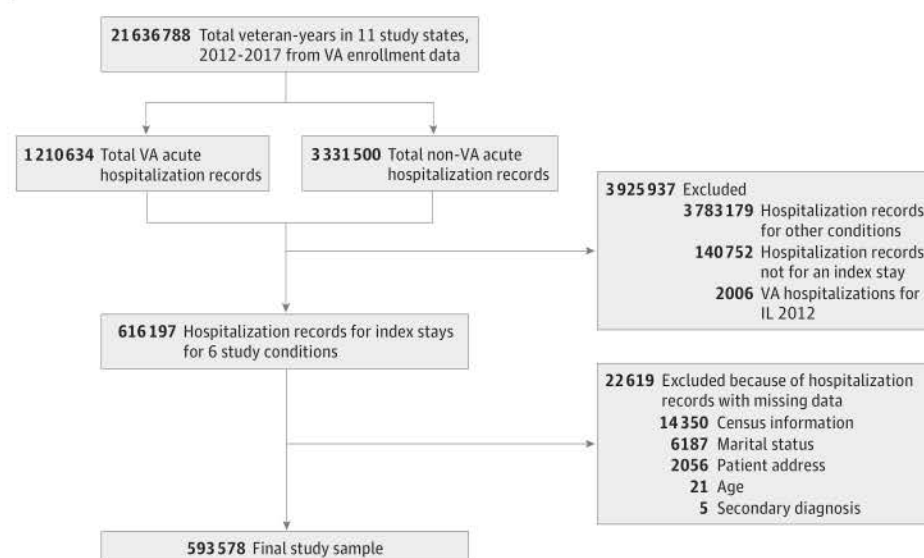
Veterans' VA use and cost records were obtained from the Inpatient Encounter files and the Managerial Cost Accounting (MCA) files in the VA Informatics and Computing Infrastructure.²⁶ Veterans' non-VA use records were obtained from state inpatient discharge data linked with VA enrollment data using either deterministic or probabilistic methods with personal identifiers.

We obtained patients' sociodemographic characteristics from the VA Health Enrollment Files and the VA Observational Medical Outcomes Partnership Files.^{27,28} Veterans' and VA hospitals' addresses were obtained from the VA Geospatial Services Support Center Files.²⁹ Non-VA hospitals' addresses were obtained from the Centers for Medicare & Medicaid Services (CMS) Provider of Service File.³⁰ Veterans' death information was obtained from the VA Vital Status File. VA hospital characteristics were obtained from the Veterans Integrated Service Network Support Services Center, and non-VA hospital characteristics were obtained from CMS hospital cost reports.^{31,32}

Acute Medical or Surgical Hospital Stays

VA acute hospital stays were identified from medicine and surgery bed sections and diagnosis-related group (DRG). We excluded stays within 30 days of discharge from a previous admission and stays for more than 180 days (not considered acute). Hospitalizations for AMI, CABG, GI hemorrhage, HF, pneumonia, and stroke were identified from principal diagnosis codes. We focused on these conditions since the Agency for Healthcare research and Quality uses hospital mortality for these conditions as a quality indicator.³³ Discharge records for Illinois could not be obtained for 2012, so hospitalizations in Illinois were excluded in that year. The **Figure** shows how the final sample was derived.

Figure. Study Sample Flowchart



Study sample inclusion and exclusion criteria. VA indicates Veterans Affairs.

Outcome Measures

Hospital outcomes included 30-day hospital mortality, 30-day readmission, inpatient costs, and LOS. Hospital mortality was indicated for all-cause deaths occurring within 30 days of admission. Thirty-day all-cause readmission was indicated for stays followed by another admission within 30 days of discharge regardless of where the stays occurred. Thirty-day mortality could not be measured for non-VA hospital stays in California and Pennsylvania since admission and discharge dates were not provided, and 30-day readmissions could not be measured for non-VA stays in California because no readmission indicator was provided in the discharge data.

VA costs included direct and indirect costs after subtracting national administration costs.³⁴ Non-VA costs included estimated professional fees³⁵ and facility charges which were adjusted by hospital cost-to-charge ratios.³¹ Costs were adjusted for inflation to 2017 dollars.^{36,37} LOS was calculated as the number of days between admission and discharge, inclusive.

Statistical Analysis

The unit of analysis was the hospital stay. Since patients who were more sick may potentially choose 1 hospital system over another, comparing outcomes in a traditional regression may produce biased results. Therefore, we used doubly robust methods with inverse probability weighted regression adjustment (IPWRA).³⁸⁻⁴⁰ In IPWRA models, we estimate 1 equation for treatment (in a VA hospital) and another for outcomes. Observations are weighted by the inverse of their conditional probability of treatment (admitted to a VA hospital) in a regression estimating outcomes so that patients are balanced in their covariates (eMethods in Supplement 1 and eTables 13-18 and eTable 22 in Supplement 2). The advantage of this method is that only 1 of the treatment and outcome equations needs to be correctly specified to produce unbiased results. Outcomes were estimated for each condition and age group separately. Analysis was conducted in StataMP version 18 (StataCorp) using teffects and took place from July 1, 2022, to October 18, 2023.

Patient Measures in Treatment Equation

We estimated treatment in VA vs non-VA hospital in a probit model by adjusting for patient factors influencing use of VA hospitals,^{8,41-43} including patients' age, sex, race and ethnicity (measured in electronic health record), marital status, priority for VA care, distance to nearest VA hospital, comorbidity score, comorbidity for substance use disorders and posttraumatic stress disorder, geographic region (Northeast, South, Midwest, West), rural or urban location, area-level income (mean standardized), and post-Choice Act period. Race and ethnicity were included to adjust for sociodemographic factors. Comorbidity score was measured for each stay using the Elixhauser-van Walraven index from all recorded diagnosis codes.⁴⁴ We indicated post-Choice Act period beginning in 2015, the first full year of implementation, because it reduced VA use. Median income was obtained for patients' zip code from US Census data.

Patient Measures in Outcomes Equation

In outcomes equations, we adjusted for factors potentially influencing outcomes that included patients' age, marital status, priority for VA care, nonelective admission, overall comorbidity score, specific medical comorbidities, mental health comorbidity, and area-level income. Models for mortality and readmission used a probit model, and models for LOS and log-transformed costs used a linear model. We estimated average treatment outcomes of VA hospitals as the difference between estimated probabilities and means for all observations assuming treatment in VA hospitals and all observations assuming treatment in non-VA hospitals along with 95% CIs. Standard errors were adjusted for each unique patient-hospital combination.⁴⁵

In sensitivity analyses, we estimated in-hospital mortality because we had complete data for all states. We also conducted analysis limited to nonelective hospitalizations because treatment and outcome patterns may vary by admission type and analysis with only 1 observation per patient throughout the 6-year period.

For descriptive purposes, hospital characteristics were measured in VA and non-VA hospitals, including number of staffed beds, bed occupancy rate, academic affiliation, and patient experience rating using percent of patients likely to recommend their hospital. Patient and hospital characteristics by VA and non-VA hospital and age group were compared in Pearson χ^2 and analysis of variance tests.

Results

Characteristics of Patients and Hospitals by System

The study sample included a total of 593 578 hospitalizations and 414 861 veterans with a mean (SD) age 75 (12) years, 405 602 males (98%), 73 155 hospitalizations of non-Hispanic Black individuals (12%), and 442 297 hospitalizations of non-Hispanic White individuals (75%) overall. The mean age was similar for younger veterans but higher for older veterans in non-VA hospitalizations compared with VA hospitalizations (**Table 1**). Most patients were male in all groups. Non-VA hospitalizations had higher mean comorbidity scores. VA hospitalizations were more likely to be for patients who were Black individuals or Hispanic individuals, not currently married, had a service-connected disability, and lived in urban areas and closer to a VA hospital than non-VA hospitalizations. Patients traveled farther when admitted to a VA hospital vs non-VA hospital.

VA hospitalizations were more likely to be nonelective and for HF and pneumonia compared with other study conditions than non-VA hospitalizations. Rates of medical comorbidities were generally lower among VA hospitals compared with non-VA hospitals (Table 1).

The mean (SD) number of hospital beds was lower in VA hospitals compared with non-VA hospitals (age <65 years, 124 [57] vs 214 [219]; $P = .007$; age ≥ 65 years, 125 [58] vs 203 [215]; $P = .02$), and the mean (SD) hospital bed occupancy rate was higher in VA hospitals than non-VA hospitals (age <65 years, 0.66 [0.18] vs 0.54 [0.19]; $P < .001$; age ≥ 65 years, 0.65 [0.17] vs 0.54 [0.20]; $P < .001$). A higher proportion of VA hospitals had a major academic affiliation (mean [SD] age <65 years, 0.58 [0.50] vs 0.36 [0.48]; $P = .003$; age ≥ 65 years, 0.64 [0.48] vs 0.34 [0.47]; $P < .001$), and mean (SD) patient experience rating was lower for VA hospitals (age <65 years, 63.6 [10.9] vs 69.1 [9.5]; $P < .001$; age ≥ 65 years, 63.5 [10.5] vs 69.3 [9.6]; $P < .001$).

Unweighted Hospital Outcomes

VA hospitalizations compared with non-VA hospitalizations had lower unweighted probability of 30-day mortality among older patients for AMI (age ≥ 65 years, 548 of 5601 [9.8%] vs 5106 of 42 715 [12.0%]; $P < .001$), GI hemorrhage (288 of 6987 [4.1%] vs 2119 of 36 482 [5.8%]; $P < .001$), HF (1235 of 20 648 [6.0%] vs 8742 of 84 465 [10.4%]; $P < .001$), pneumonia (965 of 13 417 [7.2%] vs 5785 of 59 555 [9.7%]; $P < .001$), and stroke (331 of 4726 [7.0%] vs 6494 of 39 266 [16.5%]; $P < .001$) (**Table 2**). VA hospitalizations compared with non-VA hospitalizations had lower unweighted probability of 30-day readmission for both age groups for CABG (age <65 years, 170 of 1637 [10.4%] vs 486 of 3389 [14.3%]; $P < .001$; age ≥ 65 years, 355 of 2537 [14.0%] vs 2627 of 12 835 [20.5%]; $P < .001$), GI hemorrhage (age <65 years, 700 of 4871 [14.4%] vs 1466 of 7663 [19.1%]; $P < .001$; age ≥ 65 years, 1608 of 9287 [17.3%] vs 8275 of 44 675 [18.5%]; $P = .006$), HF (age <65 years, 1993 of 9523 [20.9%] vs 3322 of 12 498 [26.6%]; $P < .001$; age ≥ 65 years, 6009 of 26 980 [22.3%] vs 25 672 of 104 445 [24.6%]; $P < .001$), pneumonia (age <65 years, 1083 of 7022 [15.4%] vs 1894 of 10 029 [18.9%]; $P < .001$; age ≥ 65 years, 2817 of 17 090 [16.5%] vs 13 934 of 72 321 [19.3%]; $P < .001$), and stroke (age <65 years, 465 of 3389 [13.7%] vs 2764 of 10 065 [27.5%]; $P < .001$; age ≥ 65 years, 1000 of 6445 [15.5%] vs 14 512 of 48 456 [30.0%]; $P < .001$).

Younger VA patients had higher probability of readmission for AMI than non-VA patients (mean [SD], 0.21 [0.41] vs 0.19 [0.39]; $P = .004$). VA hospitalizations had longer mean (SD) LOS than non-VA hospitalizations for all conditions mostly among older patients (age ≥ 65 years, AMI, 5.2 [6.4] vs 4.7 [5.0]; CABG, 11.7 [9.4] vs 9.6 [6.4]; GI hemorrhage, 4.4 [5.1] vs 4.3 [3.8]; HF, 5.4 [5.7] vs 4.9 [4.6]; pneumonia, 5.4 [6.7] vs 5.0 [4.5]; stroke, 5.8 [7.3] vs 5.0 [5.5], respectively. Mean (SD) inpatient costs

Table 1. Unweighted Patient and Hospital Characteristics of VA and Non-VA Hospitalizations, 2012-2017^a

Patient characteristics	Patients age <65 years, No. (%)		P value ^b	Patients age ≥65 years, No. (%)		P value ^b
	VA (n = 30 372)	Non-VA (n = 75 440)		VA (n = 70 266)	Non-VA (n = 417 500)	
Age, mean (SD), y	57 (7)	57 (7)	.58	77 (9)	80 (9)	<.001
Sex						
Male	28 968 (95.4)	71 922 (95.3)	.78	69 119 (98.4)	411 091 (98.5)	.05
Female	1404 (4.6)	3518 (4.7)		1147 (1.6)	6409 (1.5)	
Elixhauser-van Walraven Comorbidity Score, mean (SD)	4.6 (6.8)	5.7 (7.5)	<.001	7.4 (6.5)	9.1 (7.3)	<.001
Race and ethnicity						
Non-Hispanic Black	9630 (31.7)	19 887 (26.4)	<.001	12 136 (17.3)	31 502 (7.6)	<.001
Hispanic	2288 (7.5)	4764 (6.3)		4062 (5.8)	14 792 (3.5)	
Non-Hispanic White	16 374 (53.9)	45 216 (59.9)		48 775 (69.4)	331 932 (79.5)	
Other ^c	955 (3.1)	2612 (3.5)		2054 (2.9)	10 912 (2.6)	
Unknown	1125 (3.7)	2961 (3.9)		3239 (4.6)	28 362 (6.8)	
Marital status						
Currently married	10 246 (33.7)	32 944 (43.7)	<.001	32 183 (45.8)	270 574 (64.8)	<.001
Divorced, widowed, or separated	13 860 (45.6)	29 897 (39.6)		32 081 (45.7)	128 406 (30.8)	
Single never married	6266 (20.6)	12 599 (16.7)		6002 (8.5)	18 520 (4.4)	
VA enrollment priority group						
Service-connected disability						
>30%	9732 (32.0)	21 872 (29.0)	<.001	24 788 (35.3)	87 652 (21.0)	<.001
10%-20%	5340 (17.6)	13 334 (17.7)		13 045 (18.6)	69 493 (16.7)	
Below means test, 5 y postdischarge	12 176 (40.1)	27 888 (37.0)		24 145 (34.4)	95 002 (22.8)	
Above means test	3119 (10.3)	12 343 (16.4)		8287 (11.8)	165 340 (39.6)	
Rurality						
Urban	24 828 (81.8)	55 510 (73.6)	<.001	54 805 (78.0)	301 386 (72.2)	<.001
Rural	5544 (18.2)	19 930 (26.4)		15 461 (22.0)	116 114 (27.8)	
Distance to closest VA hospital, in miles, mean (SD)	24 (27)	44 (39)	<.001	24 (25)	43 (37)	<.001
Distance to admitted hospital, in miles, mean (SD)	26 (28)	15 (32)	<.001	26 (28)	12 (25)	<.001
Area median household income, mean (SD), \$	51 557 (20 398)	52 581 (19 034)	<.001	55 954 (23 037)	59 953 (23 365)	<.001
Area unemployment rate, mean (SD)	6.2% (2.8)	6.2% (2.9)	.17	6.0% (2.7)	5.9% (2.7)	.002
Payer of non-VA care						
Medicare	NA	23 755 (31.5)	NA	NA	372 600 (89.3)	NA
VA-purchased	NA	12 485 (16.6)		NA	12 737 (3.1)	
Private	NA	17 147 (22.7)		NA	19 432 (4.7)	
Medicaid	NA	8430 (11.2)		NA	1144 (0.3)	
Other	NA	13 623 (18.1)		NA	11 587 (2.8)	
Nonelective admission	28 283 (93.1)	68 421 (90.7)	<.001	66 284 (94.3)	373 761 (89.5)	<.001
Admitting condition						
AMI	3847 (12.7)	19 085 (25.3)	<.001	7418 (10.6)	67 395 (16.1)	<.001
CABG	1640 (5.4)	4256 (5.6)	.12	2548 (3.6)	15 981 (3.8)	.01
GI hemorrhage	4908 (16.2)	10 313 (13.7)	<.001	9385 (13.4)	56 334 (13.5)	.33
Heart failure	9625 (31.7)	17 472 (23.2)	<.001	27 306 (38.9)	131 084 (31.4)	<.001
Pneumonia	7065 (23.3)	12 684 (16.8)	<.001	17 290 (24.6)	89 024 (21.3)	<.001
Stroke	3412 (11.2)	13 070 (17.3)	<.001	6493 (9.2)	62 029 (14.9)	<.001

(continued)

Table 1. Unweighted Patient and Hospital Characteristics of VA and Non-VA Hospitalizations, 2012-2017^a (continued)

Patient characteristics	Patients age <65 years, No. (%)			Patients age ≥65 years, No. (%)		
	VA (n = 30 372)	Non-VA (n = 75 440)	P value ^b	VA (n = 70 266)	Non-VA (n = 417 500)	P value ^b
Medical comorbidity						
Heart failure	1553 (5.1)	6705 (8.9)	<.001	7057 (10.0)	66 194 (15.9)	<.001
Valvular disease	382 (1.3)	1919 (2.5)	<.001	2261 (3.2)	29 576 (7.1)	<.001
Peripheral vascular disease	1694 (5.6)	6125 (8.1)	<.001	7180 (10.2)	59 964 (14.4)	<.001
Cardiac arrhythmias	6604 (21.7)	18 568 (24.6)	<.001	28 884 (41.1)	198 361 (47.5)	<.001
Neurological disorders	1189 (3.9)	4063 (5.4)	<.001	5158 (7.3)	37 853 (9.1)	<.001
COPD	7901 (26.0)	21 650 (28.7)	<.001	23 534 (33.5)	137 508 (32.9)	.004
Diabetes without chronic complications	9192 (30.3)	19 995 (26.5)	<.001	22 314 (31.8)	107 743 (25.8)	<.001
Diabetes without chronic complications	3176 (10.5)	10 091 (13.4)	<.001	8042 (11.5)	54 778 (13.1)	<.001
Hypothyroidism	1794 (5.9)	4633 (6.1)	.15	7375 (10.5)	58 511 (14.0)	<.001
Kidney failure	5944 (19.6)	14 960 (19.8)	.34	23 283 (33.1)	145 971 (35.0)	<.001
Liver disease	3772 (12.4)	6090 (8.1)	<.001	3214 (4.6)	10 460 (2.5)	<.001
Lymphoma	298 (1.0)	599 (0.8)	.003	1023 (1.5)	5346 (1.3)	<.001
Metastatic cancer	452 (1.5)	1014 (1.3)	.07	1457 (2.1)	7732 (1.9)	<.001
Solid tumor without metastasis	926 (3.1)	1396 (1.9)	<.001	4071 (5.8)	14 001 (3.4)	<.001
Rheumatoid arthritis	474 (1.6)	1279 (1.7)	.12	1148 (1.6)	8891 (2.1)	<.001
Coagulopathy	1291 (4.3)	5242 (7.0)	<.001	3187 (4.5)	34 284 (8.2)	<.001
Obesity	3900 (12.8)	15 189 (20.1)	<.001	5299 (7.5)	42 717 (10.2)	<.001
Weight loss	642 (2.1)	2919 (3.9)	<.001	1828 (2.6)	20 829 (5.0)	<.001
Fluid and electrolyte disorders	5015 (16.5)	19 891 (26.4)	<.001	12 096 (17.2)	115 259 (27.6)	<.001
Chronic blood loss anemia	494 (1.6)	1295 (1.7)	.30	1216 (1.7)	8520 (2.0)	<.001
Deficiency anemias	4985 (16.4)	12 202 (16.2)	.34	15 543 (22.1)	97 414 (23.3)	<.001
Mental health comorbidity						
Mood disorders	5977 (19.7)	12 297 (16.3)	<.001	8619 (12.3)	41 625 (10.0)	<.001
Serious mental illness	1989 (6.6)	3928 (5.2)	<.001	1792 (2.6)	6283 (1.5)	<.001
Substance use disorders	5606 (18.5)	13 036 (17.3)	<.001	3619 (5.2)	14 483 (3.5)	<.001
Posttraumatic stress disorder	2407 (7.9)	3622 (4.8)	<.001	3845 (5.5)	5894 (1.4)	<.001
Hospital characteristics, No.	45	1446	NA	45	1552	NA
Total beds, mean (SD)	124 (57)	214 (219)	.007	125 (58)	203 (215)	.02
Occupancy rate, mean (SD)	0.66 (0.18)	0.54 (0.19)	<.001	0.65 (0.17)	0.54 (0.20)	<.001
Academic affiliation, mean (SD)	0.58 (0.50)	0.36 (0.48)	.003	0.64 (0.48)	0.34 (0.47)	<.001
Patient experience, mean (SD)	63.6 (10.9)	69.1 (9.5)	<.001	63.5 (10.5)	69.3 (9.6)	<.001

Abbreviations: AMI, acute myocardial infarction; CABG, coronary artery bypass surgery; COPD, chronic obstructive pulmonary disease; GI, gastrointestinal; NA, not applicable; VA, Veterans Affairs

^a Observations summarized here are hospitalizations.

^b P values reported for Pearson χ^2 tests for categorical variables and analysis of variance tests for continuous variables.

^c Includes Alaska Native, Asian American, Native Hawaiian, and Pacific Islander.

were mostly higher in VA hospitalizations (AMI: age ≥65 years, \$24 600 [\$32 000] vs \$21 700 [\$24 800]; $P < .001$; CABG: age <65 years, \$68 500 [\$52 800] vs \$51 600 [\$35 000]; $P < .001$; age ≥65 years, \$76 200 [\$55 900] vs \$53 100 [\$35 300]; $P < .001$; GI hemorrhage: age <65 years, \$14 400 [\$23 600] vs \$11 900 [\$17 000]; $P < .001$; age ≥65 years, \$16 300 [\$19 800] vs \$11 300 [\$13 100]; $P < .001$; HF: age <65 years, \$17 000 [\$21 700] vs \$15 000 [\$31 200]; $P < .001$; age ≥65 years, \$16 900 [\$22 500] vs \$11 600 [\$19 000]; $P < .001$; pneumonia: age <65 years, \$17 600 [\$33 000] vs \$11 100 [\$16 300]; $P < .001$; age ≥65 years, \$17 800 [\$28 400] vs \$10 200 [\$12 300]; $P < .001$; stroke: age ≥65 years, \$19 000 [\$28 300] vs \$15 600 [\$20 600]; $P < .001$) except for

younger patients with AMI and stroke who had higher costs in non-VA hospitalizations (\$23 800 [\$24 900] vs \$22 500 [\$22 500]; $P = .005$; and \$21 300 [\$34 500] vs \$17 700 [\$28 200]; $P < .001$).

Average Treatment Outcomes of VA Hospitals

In models balancing covariates between patients in VA and non-VA hospitals, there were no significant treatment effects of VA hospitals on probability of 30-day mortality for most conditions (**Table 3**). VA hospitalizations had significantly lower probability of mortality for HF for veterans aged 65 and older (-0.02 [95% CI, -0.03 to -0.01]) and stroke for both age groups (age <65 years, -0.03 [95% CI, -0.05 to -0.02]; age ≥ 65 years, -0.05 [95% CI, -0.07 to -0.03]).

VA hospitalizations for AMI had higher probability of 30-day readmission only among younger veterans (0.04 [95% CI, 0.01 to 0.06]). VA hospitalizations had significantly lower probability of 30-day readmission for CABG (age <65 years, -0.04 [95% CI, -0.06 to -0.01]; age ≥ 65 years, -0.05 [95% CI, -0.07 to -0.02]), GI hemorrhage (age <65 years, -0.04 [95% CI, -0.06 to -0.03]), HF (age <65 years, -0.05 [95% CI, -0.07 to -0.03]), pneumonia (age <65 years, -0.04 [95% CI, -0.06 to -0.03]; age ≥ 65 years, -0.03 [95% CI, -0.04 to -0.02]), and stroke (age <65 years, -0.11 [95% CI, -0.13 to -0.09]; age ≥ 65 years, -0.13 [95% CI, -0.16 to -0.10]).

There was significantly greater mean LOS in VA hospitals for all study conditions and both age groups except stroke in younger patients (**Table 4**). Differences in LOS between VA and non-VA hospitals ranged from 0.28 (95% CI, 0.09 to 0.47) days for GI hemorrhage among younger patients to 3.00 (95% CI, 2.43 to 3.57) days for CABG among older patients. Mean costs (log transformed) of VA hospitalizations for AMI among younger veterans were approximately 7% lower than non-VA hospitalizations (age <65 years, -0.07 [95% CI, -0.11 to -0.02]) but 21% higher among older veterans (age ≥ 65 years, 0.21 [95% CI, 0.17 to 0.25]). Mean hospitalization costs were significantly higher in VA hospitals for other study conditions and age groups, except for stroke among younger patients. Full results are in eTables 1 to 12 in Supplement 2.

Table 2. Unweighted Acute Hospitalization Outcomes in VA and Non-VA Hospitals, 2012-2017

Condition by age group, y ^a	No.	30-d mortality			30-d readmission			LOS, d			Cost (in \$1000s)		
		Unweighted, No. (%)		P value ^b	Unweighted, No. (%)		P value	Unweighted, mean (SD)		P value	Unweighted, mean (SD)		P value
		VA	Non-VA		VA	Non-VA		VA	Non-VA		VA	Non-VA	
AMI													
<65	22 681	83 (2.9)	468 (3.7)	.04	791 (20.7)	2795 (18.7)	.004	4.1 (6.2)	4.0 (4.6)	.15	22.5 (35.4)	23.8 (24.9)	.005
≥65	74 138	548 (9.8)	5106 (12.0)	<.001	1777 (24.2)	12 922 (24.5)	.54	5.2 (6.4)	4.7 (5.0)	<.001	24.6 (32.0)	21.7 (24.8)	<.001
CABG													
<65	5829	12 (1.0)	39 (1.4)	.35	170 (10.4)	486 (14.3)	<.001	10.5 (8.9)	8.9 (5.8)	<.001	68.5 (52.8)	51.6 (35.0)	<.001
≥65	18 396	37 (2.1)	229 (2.2)	.77	355 (14.0)	2627 (20.5)	<.001	11.7 (9.4)	9.6 (6.4)	<.001	76.2 (55.9)	53.1 (35.3)	<.001
GI hemorrhage													
<65	15 009	87 (2.5)	218 (3.3)	.02	700 (14.4)	1466 (19.1)	<.001	3.8 (5.0)	4.0 (4.4)	.01	14.4 (23.6)	11.9 (17.0)	<.001
≥65	65 174	288 (4.1)	2119 (5.8)	<.001	1608 (17.3)	8275 (18.5)	.006	4.4 (5.1)	4.3 (3.8)	.009	16.3 (19.8)	11.3 (13.1)	<.001
HF													
<65	26 730	153 (2.3)	323 (3.0)	.004	1993 (20.9)	3322 (26.6)	<.001	5.2 (5.7)	5.1 (6.0)	.05	17.0 (21.7)	15.0 (31.2)	<.001
≥65	156 863	1235 (6.0)	8742 (10.4)	<.001	6009 (22.3)	25 672 (24.6)	<.001	5.4 (5.7)	4.9 (4.6)	<.001	16.9 (22.5)	11.6 (19.0)	<.001
Pneumonia													
<65	19 476	186 (3.3)	334 (3.9)	.07	1083 (15.4)	1894 (18.9)	<.001	5.0 (6.7)	4.8 (4.9)	.01	17.6 (33.0)	11.1 (16.3)	<.001
≥65	105 275	965 (7.2)	5785 (9.7)	<.001	2817 (16.5)	13 934 (19.3)	<.001	5.4 (6.7)	5.0 (4.5)	<.001	17.8 (28.4)	10.2 (12.3)	<.001
Stroke													
<65	16 223	53 (2.2)	541 (6.3)	<.001	465 (13.7)	2764 (27.5)	<.001	5.3 (8.3)	6.3 (9.5)	<.001	17.7 (28.2)	21.3 (34.5)	<.001
≥65	67 812	331 (7.0)	6494 (16.5)	<.001	1000 (15.5)	14 512 (30.0)	<.001	5.8 (7.3)	5.0 (5.5)	<.001	19.0 (28.3)	15.6 (20.6)	<.001

Abbreviations: AMI, acute myocardial infarction; CABG, coronary artery bypass surgery; GI, gastrointestinal; HF, heart failure; LOS, length of stay; VA, Veterans Affairs.

^a Nos. varied by outcome and reported only for LOS.

^b P values reported for analysis of variance tests.

In sensitivity analyses with all states, VA hospitals had significantly higher probability of in-hospital mortality for pneumonia but significantly lower probability for stroke and no other differences (eTable 19 in Supplement 2). Including only nonelective admissions, results were similar to all hospitalizations (eTable 20 in Supplement 2). When analysis was limited to only 1 observation per patient, results were similar to all hospitalizations, except that mortality was higher in VA hospitals for AMI for patients younger than 65 years (eTable 21 in Supplement 2).

Discussion

To our knowledge, this is the first study to compare outcomes for veterans of all ages in VA and non-VA hospitals for 6 common conditions. After accounting for selection of patients into VA or non-VA hospitals, patients treated in VA hospitals had significantly lower probability of 30-day mortality than those in non-VA hospitals for HF among older patients and stroke for both younger and older patients. Patients treated for CABG, GI hemorrhage, HF, pneumonia, and stroke in VA hospitals had lower probability of readmission compared with patients in non-VA hospitals; however, differences for GI hemorrhage and HF were found only in younger patients. In contrast, younger patients hospitalized for AMI in VA hospitals had higher probability of readmission than non-VA patients. Mean hospitalization costs were mostly higher, and mean LOS was longer in VA hospitals for the study conditions. Costs of AMI hospitalizations for younger patients were lower in VA hospitals than non-VA hospitals.

Our findings showing lower mortality in VA hospitals for 2 of the 6 conditions suggests that there was a mortality advantage associated with VA hospitals but not for all types of care. Recent studies of inpatient surgery and emergency department care also found associations between lower mortality and better quality in VA hospitals compared with non-VA hospitals.^{5,46,47} More research is

Table 3. Average Treatment Outcomes of VA Hospitals Compared With Non-VA Hospitals for 30-Day Mortality and 30-Day Readmission

Condition and age group, years	30-d Mortality ^a			30-d Readmission		
	Participants mortality, No.	Average treatment outcome (95% CI)	P value	Participants readmission, No.	Average treatment outcome (95% CI)	P value
AMI						
<65 ^b	15 105	-0.007 (-0.016 to 0.003)	.17	17 627	0.037 (0.014 to 0.060)	.002
≥65	47 288	0.012 (-0.009 to 0.033)	.26	57 713	0.001 (-0.022 to 0.025)	.90
CABG						
<65	3795	Not estimable		4510	-0.035 (-0.060 to -0.011)	.00
≥65	12 037	0.009 (-0.004 to 0.021)	.17	14 519	-0.045 (-0.074 to -0.017)	.001
GI hemorrhage						
<65	9511	-0.001 (-0.010 to 0.008)	.80	10 977	-0.043 (-0.060 to -0.026)	<.001
≥65	42 329	0.004 (-0.009 to 0.016)	.58	51 142	-0.0001 (-0.019 to 0.021)	.91
HF						
<65	16 295	-0.003 (-0.009 to 0.004)	.41	18 883	-0.049 (-0.066 to -0.032)	<.001
≥65	101 388	-0.017 (-0.027 to -0.006)	.001	123 584	-0.008 (-0.024 to 0.008)	.31
Pneumonia						
<65	13 162	-0.001 (-0.008 to 0.006)	.76	15 355	-0.042 (-0.056 to -0.028)	<.001
≥65	70 658	-0.004 (-0.015 to 0.008)	0.54	84 705	-0.029 (-0.043 to -0.015)	<.001
Stroke						
<65	10 537	-0.033 (-0.045 to -0.022)	<.001	12 288	-0.109 (-0.132 to -0.086)	<.001
≥65	43 052	-0.053 (-0.074 to -0.031)	<.001	52 555	-0.130 (-0.158 to -0.101)	<.001

Abbreviations: AMI, acute myocardial infarction; CABG, coronary artery bypass surgery; GI, gastrointestinal; HF, heart failure; VA, Veterans Affairs.

^a Average treatment outcomes of difference in predicted probability for VA hospitals vs non-VA hospitals estimated from inverse probability weighting regression adjustment models with probit models for treatment and outcomes.

^b Nos. varied by outcome.

needed to determine what aspects of VA care, such as postdischarge care, can improve mortality and whether there are differences for other clinical outcomes.

Our findings on mortality are similar to some previous findings but diverged from others. We did not find differences in mortality for CABG between VA and non-VA hospitals similar to another study.¹⁷ We found lower mortality for HF and stroke but not AMI in VA hospitals, while another study found lower mortality for AMI and HF in VA hospitals but did not include stroke in a study of adults aged 65 years and older.¹³ That study included veterans and nonveterans in an earlier period, which may explain different findings.⁸

We found lower readmissions in VA hospitals for CABG, GI hemorrhage, HF, pneumonia, and stroke but higher readmissions for AMI in younger patients. In contrast, Nuti et al⁸ documented higher readmissions in VA hospitals for AMI, HF, and pneumonia in older patients prior to access expansions. VA hospitals may be more successful in reducing readmissions due to an integrated delivery system, implementation of the patient-centered medical home, and an electronic medical record system. It is unclear why younger patients who were hospitalized for AMI were more likely to be readmitted in VA hospitals even though patients often travel longer distances to VA hospitals, potentially affecting their outcomes. Both VA and non-VA hospitals have recently emphasized reducing readmissions through the use of performance measures in the VA and payment policies in the private sector and Medicare.

Mean LOS was longer and costs were higher in VA hospitalizations for most conditions compared with non-VA hospitalizations. Medicare and private insurance payment policies (eg, bundled payment programs) have focused on efficiency and may have influenced hospitals to discharge patients sooner while VA hospitals were unaffected by such policies. VA hospitals may keep patients longer to ensure they are stable before discharging them. Higher VA hospitalization costs may be partly explained by longer LOS. There may be other differences due to staffing and overhead between VA and non-VA hospitals leading to greater resource use. A study⁴⁸ about ED care

Table 4. Average Treatment Outcomes of VA Hospitals Compared With Non-VA Hospitals for Length of Stay and Costs

Condition and age group, years	LOS, d			Costs in \$ (log transformed)		
	Participants LOS, No.	Average treatment outcome, (95% CI) ^a	P value	Participants costs, No.	Average treatment outcome, (95% CI) ^a	P value
AMI						
<65 ^b	22 681	0.97 (0.50 to 1.4)	<.001	22 057	-0.07 (-0.11 to -0.02)	.003
≥65	74 138	1.41 (1.09 to 1.7)	<.001	71 609	0.21 (0.17 to 0.25)	<.001
CABG						
<65	5829	2.31 (1.77 to 2.84)	<.001	5734	0.32 (0.28 to 0.35)	<.001
≥65	18 396	3.00 (2.43 to 3.57)	<.001	18 030	0.39 (0.35 to 0.44)	<.001
GI hemorrhage						
<65	15 009	0.28 (0.09 to 0.47)	.003	14 517	0.24 (0.21 to 0.27)	<.001
≥65	65 174	0.50 (0.30 to 0.70)	<.001	62 712	0.40 (0.36 to 0.44)	<.001
HF						
<65	26 730	1.22 (0.99 to 1.45)	<.001	25 956	0.38 (0.35 to 0.41)	<.001
≥65	156 863	1.29 (1.12 to 1.46)	<.001	150 851	0.50 (0.48 to 0.53)	<.001
Pneumonia						
<65	19 476	0.53 (0.32 to 0.73)	<.001	18 775	0.36 (0.33 to 0.39)	<.001
≥65	105 275	0.57 (0.41 to 0.74)	<.001	99 469	0.47 (0.45 to 0.50)	<.001
Stroke						
<65	16 223	0.88 (-0.13 to 1.89)	.09	15 643	0.04 (-0.01 to 0.09)	.10
≥65	67 812	2.34 (1.58 to 3.10)	<.001	65 045	0.40 (0.33 to 0.48)	<.001

Abbreviations: AMI, acute myocardial infarction; CABG, coronary artery bypass surgery; GI, gastrointestinal; HF, heart failure; LOS, length of stay; VA, Veterans Affairs.

^a Average treatment outcomes of difference in predicted probability for VA hospitals vs non-VA hospitals estimated from inverse probability weighting regression adjustment models with probit models for treatment and linear models for outcomes.

^b Nos. varied by outcome.

found lower VA costs over 28 days, so focusing on inpatient costs does not account for post-discharge costs that may be lower in the VA.

Our findings are especially relevant given that the Centers for Medicare & Medicaid Services now publicly reports the performance of VA hospitals in addition to non-VA hospitals on its Care Compare website. Veterans may be more likely to choose VA hospitals that perform comparatively better than other hospitals in their service area.

Limitations

This study has limitations. These data precede the MISSION Act of 2018, so our findings may not be generalizable to veterans currently accessing non-VA care. Our findings were based on hospitalizations from 47% of VA hospitals from diverse states, but they may not be generalizable to all VA hospitals. Our methods used many observed patient characteristics to account for patient selection, but there may have been unobserved factors which influenced patients' use of VA hospitals and outcomes. Undercoding of comorbidities was previously documented in the VA,^{49,50} so differences in outcomes may have been underestimated. We did not distinguish between potentially avoidable readmissions and unavoidable or planned readmissions which may have led to overestimates of the observed readmission rates; however, planned readmissions only account for roughly 7% of all readmissions, so it is unlikely to materially affect our results.⁵¹ Non-VA hospitalization costs were estimated from cost-adjusted charges, which is less accurate than production costs, so cost differences may have been underestimated. Finally, we included hospitalizations for patients who were discharged against medical advice because these hospitalizations typically represent a small proportion (1%) of hospitalizations.⁵²

Conclusions

Expanding access to non-VA care may improve timeliness and reduce travel costs for many veterans; however, there are tradeoffs with higher mortality and readmissions in non-VA hospitals observed across age groups. As more veterans use care in the community paid for by the VA due to the MISSION Act, our findings suggest there may be reasons for concern. Veterans could experience worse outcomes for some types of care without well-developed community care networks based on quality standards and sufficient care coordination between VA and non-VA clinicians. In an era of greater choice, veterans' often benefit by choosing VA care.

ARTICLE INFORMATION

Accepted for Publication: October 20, 2023.

Published: December 1, 2023. doi:10.1001/jamanetworkopen.2023.45898

Open Access: This is an open access article distributed under the terms of the CC-BY License. © 2023 Yoon J et al. JAMA Network Open.

Corresponding Author: Jean Yoon, PhD, MHS, Health Economics Resource Center (HERC), VA Palo Alto Health Care System, 795 Willow Rd (152 MPD), Menlo Park, CA 94025 (jean.yoon@va.gov).

Author Affiliations: Health Economics Resource Center, Veterans Affairs Palo Alto Health Care System, Menlo Park, California (Yoon, Phibbs, Chow, Wong); Center for Innovation to Implementation, Veterans Affairs Palo Alto Health Care System, Menlo Park, California (Yoon, Phibbs, Dizon); Department of General Internal Medicine, University of California San Francisco School of Medicine, San Francisco (Yoon); Departments of Pediatrics and Health Policy, Stanford University School of Medicine, Stanford, California (Phibbs); Veterans Affairs Center for the Study of Healthcare Innovation, Implementation and Policy, Los Angeles, California (Ong); Department of Health Policy and Management, Fielding School of Public Health, University of California, Los Angeles (Ong); Department of Medicine, David Geffen School of Medicine, University of California, Los Angeles (Ong); Informatics, Decision-Enhancement and Analytic Sciences Center, Veterans Affairs Salt Lake City Health Care System, Salt Lake City, Utah (Vanneman, Redd, Zhang); Division of Epidemiology, Department of Internal Medicine, University of Utah School of Medicine, Salt Lake City (Vanneman, Zhang); Division of Health System Innovation and Research, Department of

Population Health Sciences, University of Utah School of Medicine, Salt Lake City (Vanneman); Division of Biostatistics, Department of Population Health Sciences, University of Utah School of Medicine, Salt Lake City (Zhang); Stanford University School of Medicine, Stanford, California (Kizer).

Author Contributions: Drs Yoon and Zhang had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: Yoon, Phibbs, Vanneman, Redd, Zhang.

Acquisition, analysis, or interpretation of data: Yoon, Phibbs, Ong, Vanneman, Chow, Redd, Kizer, Wong, Dizon, Zhang.

Drafting of the manuscript: Yoon, Wong, Zhang.

Critical review of the manuscript for important intellectual content: Phibbs, Ong, Vanneman, Chow, Redd, Kizer, Dizon, Zhang.

Statistical analysis: Yoon, Phibbs, Chow, Redd, Zhang.

Obtained funding: Yoon, Zhang.

Administrative, technical, or material support: Yoon, Chow, Kizer, Wong, Dizon, Zhang.

Supervision: Yoon, Kizer.

Conflict of Interest Disclosures: None reported.

Funding/Support: This study was supported by grants IHX002653-01A1 and 1IK2HX002625 from the US Department of Veterans Affairs.

Role of the Funder/Sponsor: The funder had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Disclaimer: The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government or any of the state agencies listed above. All work in this manuscript are original. Pennsylvania Health Care Cost Containment Council (PHC4), its agents, and staff, have made no representation, guarantee, or warranty, express or implied, that the data-financial, patient, payor, and physician specific information-provided to this entity, are error-free, or that the use of the data will avoid differences of opinion or interpretation. This analysis was not prepared by PHC4. This analysis was done by Dr Yoon and her team. PHC4, its agents and staff, bear no responsibility or liability for the results of the analysis, which are solely the opinion of this entity.

Meeting Presentation: Preliminary data from this study was presented at the Academy Health Annual Research Meeting, Seattle, WA, June 24-27, 2023.

Data Sharing Statement: See Supplement 3.

Additional Contributions: We wish to thank Hao Jiang, MS (VA Palo Alto), for programming assistance. Mr Jiang is an employee of the VA Palo Alto and was compensated for his work. We thank the Arizona Department of Health Services, California Department of Health Care Access and Information, Connecticut Department of Public Health, Florida Agency for Health Care Administration, Illinois Department of Public Health, Louisiana Department of Health, Massachusetts Center for Health Information and Analysis, Missouri Department of Health and Senior Services, New York Statewide Planning and Research Cooperative System, PHC4, and South Carolina Revenue and Fiscal Affairs Office for providing data for this study.

REFERENCES

1. Kizer KW. Veterans and the Affordable Care Act. *JAMA*. 2012;307(8):789-790. doi:10.1001/jama.2012.196
2. Gurewich D, Schwartz M, Beilstein-Wedel E, Davila H, Rosen AK. Did access to care improve since passage of the Veterans Choice Act: differences between rural and urban veterans. *Med Care*. 2021;59(6)(suppl 3):S270-S278. doi:10.1097/MLR.0000000000001490
3. O'Mahen PN, Petersen LA. Effects of state-level Medicaid expansion on Veterans Health Administration dual enrollment and utilization: potential implications for future coverage expansions. *Med Care*. 2020;58(6):526-533. doi:10.1097/MLR.0000000000001327
4. Moscelli G, Siciliani L, Gutacker N, Gravelle H. Location, quality and choice of hospital: evidence from England 2002-2013. *Reg Sci Urban Econ*. 2016;60:112-124. doi:10.1016/j.regsciurbeco.2016.07.001
5. George EL, Massarweh NN, Youk A, et al. Comparing Veterans Affairs and private sector perioperative outcomes after noncardiac surgery. *JAMA Surg*. 2022;157(3):231-239.
6. O'Hanlon C, Huang C, Sloss E, et al. Comparing VA and non-VA quality of care: a systematic review. *J Gen Intern Med*. 2017;32(1):105-121. doi:10.1007/s11606-016-3775-2

7. Anhang Price R, Sloss EM, Cefalu M, Farmer CM, Hussey PS. Comparing quality of care in Veterans Affairs and non-Veterans Affairs settings. *J Gen Intern Med*. 2018;33(10):1631-1638. doi:10.1007/s11606-018-4433-7
8. Nuti SV, Qin L, Rumsfeld JS, et al. Association of admission to veterans affairs hospitals vs non-veterans affairs hospitals with mortality and readmission rates among older men hospitalized with acute myocardial infarction, heart failure, or pneumonia. *JAMA*. 2016;315(6):582-592. doi:10.1001/jama.2016.0278
9. Weeks WB, Lee RE, Wallace AE, West AN, Bagian JP. Do older rural and urban veterans experience different rates of unplanned readmission to VA and non-VA hospitals? *J Rural Health*. 2009;25(1):62-69. doi:10.1111/j.1748-0361.2009.00200.x
10. Petersen LA, Normand SLT, Daley J, McNeil BJ. Outcome of myocardial infarction in Veterans Health Administration patients as compared with Medicare patients. *N Engl J Med*. 2000;343(26):1934-1941. doi:10.1056/NEJM200012283432606
11. Landrum MB, Guadagnoli E, Zummo R, Chin D, McNeil BJ. Care following acute myocardial infarction in the Veterans Administration Medical Centers: a comparison with Medicare. *Health Serv Res*. 2004;39(6p1):1773-1792.
12. Gidwani-Marszowski R, Faricy-Anderson K, Asch SM, Illarino S, Ananth L, Patel MI. Potentially avoidable hospitalizations after chemotherapy: differences across Medicare and the Veterans Health Administration. *Cancer*. 2020;126(14):3297-3302. doi:10.1002/cncr.32896
13. LaBedz SL, Krishnan JA, Chung YC, et al. Chronic obstructive pulmonary disease outcomes at veterans affairs versus non-Veterans Affairs hospitals. *Chronic Obstr Pulm Dis*. 2021;8(3):306-313.
14. Tamura MK, Thomas I, Montez-Rath M, et al. Dialysis initiation and mortality among older veterans with kidney failure treated in medicare vs the Department of Veterans Affairs [published online ahead of print April 9. *JAMA Intern Med*. 2018;178(5):657-664. doi:10.1001/jamainternmed.2018.0411
15. Agha Z, Lofgren RP, VanRuiswyk JV, Layde PM. Are patients at Veterans Affairs medical centers sicker: a comparative analysis of health status and medical resource use. *Arch Intern Med*. 2000;160(21):3252-3257. doi:10.1001/archinte.160.21.3252
16. Wong ES, Wang V, Liu CF, Hebert PL, Maciejewski ML. Do Veterans Health Administration enrollees generalize to other populations? *Med Care Res Rev*. 2016;73(4):493-507. doi:10.1177/1077558715617382
17. Barnett PG, Hong JS, Carey E, Grunwald GK, Joynt Maddox K, Maddox TM. Comparison of accessibility, cost, and quality of elective coronary revascularization between Veterans Affairs and community care hospitals. *JAMA Cardiol*. 2018;3(2):133-141. doi:10.1001/jamacardio.2017.4843
18. Waldo SW, Glorioso TJ, Barón AE, et al. Outcomes among patients undergoing elective percutaneous coronary intervention at Veterans Affairs and community care hospitals. *J Am Coll Cardiol*. 2020;76(9):1112-1116. doi:10.1016/j.jacc.2020.05.086
19. Timko C, Chen S, Sempel J, Barnett P. Dual diagnosis patients in community or hospital care: one-year outcomes and health care utilization and costs. *J Ment Health*. 2006;15(2):163-177. doi:10.1080/09638230600559631
20. Rosen AK, Beilstein-Wedel EE, Harris AHS, et al. Comparing postoperative readmission rates between Veterans receiving total knee arthroplasty in the Veterans Health Administration versus community care. *Med Care*. 2022;60(2):178-186. doi:10.1097/MLR.0000000000001678
21. Wang V, Maciejewski ML, Patel UD, Stechuchak KM, Hynes DM, Weinberger M. Comparison of outcomes for veterans receiving dialysis care from VA and non-VA providers. *BMC Health Serv Res*. 2013;13:26. doi:10.1186/1472-6963-13-26
22. Mooney C, Zwanziger J, Phibbs CS, Schmitt S. Is travel distance a barrier to veterans' use of VA hospitals for medical surgical care? *Soc Sci Med*. 2000;50(12):1743-1755. doi:10.1016/s0277-9536(99)00414-1
23. Chou S, Deily ME, Li S. Travel distance and health outcomes for scheduled surgery. *Med Care*. 2014;52(3):250-257. doi:10.1097/MLR.000000000000082
24. Luft HS, Garnick DW, Mark DH, et al. Does quality influence choice of hospital? *JAMA*. 1990;263(21):2899-2906. doi:10.1001/jama.1990.03440210049031
25. Veteran population. National Center for Veterans Analysis and Statistics. Accessed August 3, 2021. https://www.va.gov/vetdata/veteran_population.asp
26. US Department of Veterans Affairs. Corporate Data Warehouse, CDW, 2012-2017. Accessed June 2021. <https://catalog.data.gov/dataset/corporate-data-warehouse-cdw>
27. US Department of Veterans Affairs Information Resource Center. *VIReC Research User Guide: VHA Assistant Deputy Under Secretary for Health (ADUSH)*. Enrollment Files; 2013.

28. Lynch KE, Deppen SA, DuVall SL, et al. Incrementally transforming electronic medical records into the observational medical outcomes partnership common data model: a multidimensional quality assurance approach. *Appl Clin Inform*. 2019;10(5):794-803. doi:10.1055/s-0039-1697598
29. US Department of Veterans Affairs. Geospatial services support center files.
30. Centers for Medicare & Medicaid Services. Provider of services current files. Accessed June 2022. <https://data.cms.gov/provider-characteristics/hospitals-and-other-facilities/provider-of-services-file-hospital-non-hospital-facilities>
31. Cutting AC, Goldberg GM, Jervis KJ. An easier method to extract data from large databases: the Medicare hospital cost report database. *Res Healthcare Fin Management*. 2007;11(1):27.
32. US Department of Veterans Affairs. VHA Support Service Center data. Accessed June 2022. <https://www.data.va.gov/dataset/VHA-Support-Service-Center-Capital-Assets-VSSC-/2fr5-sktm>
33. Patient Safety Indicators. Agency for Healthcare Research and Quality. Accessed November 4, 2023. https://qualityindicators.ahrq.gov/measures/psi_resources
34. Barnett PG, Berger M. Indirect costs of specialized VA inpatient mental health treatment. 2003. Health Economics Resource Center. Accessed October 31, 2023. https://www.herc.research.va.gov/files/RPRT_119.pdf
35. Peterson C, Xu L, Florence C, Grosse SD, Annett JL. Professional fee ratios for US hospital discharge data. *Med Care*. 2015;53(10):840-849. doi:10.1097/MLR.0000000000000410
36. Dunn A, Grosse SD, Zuvekas SH. Adjusting health expenditures for inflation: a review of measures for health services research in the United States. *Health Serv Res*. 2018;53(1):175-196. doi:10.1111/1475-6773.12612
37. GDP price deflator. Bureau of Economic Analysis. Accessed November 4, 2023. <https://www.bea.gov/data/prices-inflation/gdp-price-deflator>
38. Chesnaye NC, Stel VS, Tripepi G, et al. An introduction to inverse probability of treatment weighting in observational research. *Clin Kidney J*. 2021;15(1):14-20. doi:10.1093/ckj/sfab158
39. Vansteelandt S, Daniel RM. On regression adjustment for the propensity score. *Stat Med*. 2014;33(23):4053-4072. doi:10.1002/sim.6207
40. Curtis LH, Hammill BG, Eisenstein EL, Kramer JM, Anstrom KJ. Using inverse probability-weighted estimators in comparative effectiveness analyses with observational databases. *Med Care*. 2007;45(10)(suppl 2):S103-S107. doi:10.1097/MLR.0b013e31806518ac
41. Allison JJ, Kiefe CI, Weissman NW, et al. Relationship of hospital teaching status with quality of care and mortality for Medicare patients with acute MI. *JAMA*. 2000;284(10):1256-1262. doi:10.1001/jama.284.10.1256
42. Carey K, Stefos T. The cost of hospital readmissions: evidence from the VA. *Health Care Management Sci*. 2016;19(3):241-248. doi:10.1007/s10729-014-9316-9
43. Silva GC, Jiang L, Gutman R, et al. Mortality trends for veterans hospitalized with heart failure and pneumonia using claims-based vs clinical risk-adjustment variables. *JAMA Internal Med*. 2020;180(3):347. doi:10.1001/jamainternmed.2019.5970
44. van Walraven C, Austin PC, Jennings A, Quan H, Forster AJ. A modification of the Elixhauser comorbidity measures into a point system for hospital death using administrative data. *Med Care*. 2009;47(6):626-633. doi:10.1097/MLR.0b013e31819432e5
45. Liang KY, Zeger SL. Longitudinal data analysis using generalized linear models. *Biometrika*. 1986;73(1):13-22. doi:10.1093/biomet/73.1.13
46. Blay E, DeLancey JO, Hewitt DB, Chung JW, Bilimoria KY. Initial public reporting of quality at veterans affairs vs non-Veterans Affairs hospitals. *JAMA Internal Med*. 2017;177(6):882. doi:10.1001/jamainternmed.2017.0605
47. Apaydin EA, Paige NM, Begashaw MM, Larkin J, Miake-Lye IM, Shekelle PG. Veterans Health Administration (VA) vs non-VA healthcare quality: a systematic review. *J Gen Intern Med*. 2023;38(9):2179-2188. doi:10.1007/s11606-023-08207-2
48. Chan DC, Card D, Taylor L. Is there a VA advantage: evidence from dually eligible veterans. 2022;113(11):3003-3043. doi:10.1257/aer.20211638
49. Byrne MM, Kuebler M, Pietz K, Petersen LA. Effect of using information from only one system for dually eligible health care users. *Med Care*. 2006;44(8):768-773. doi:10.1097/01.mlr.0000218786.44722.14
50. Rosen AK, Gardner J, Montez M, Loveland S, Hendricks A. Dual-system use: are there implications for risk adjustment and quality assessment? *Am J Med Qual*. 2005;20(4):182-194. doi:10.1177/1062860605275791
51. Horwitz LI, Grady JN, Cohen DB, et al. Development and validation of an algorithm to identify planned readmissions from claims data. *J Hosp Med*. 2015;10(10):670-677. doi:10.1002/jhm.2416
52. Spooner KK, Salemi JL, Salihi HM, Zoorob RJ. *Discharge against medical advice in the United States, 2002-2011*. Elsevier; 2017:525-535.

SUPPLEMENT 1.

eMethods.

eReferences.

SUPPLEMENT 2.

eTable 1. AMI Patients Less Than 65 Years of Age: Coefficients From IPWRA Models**eTable 2.** AMI Patients 65 Years and Older: Coefficients From IPWRA Models**eTable 3.** CABG Patients Less Than 65 Years of Age: Coefficients From IPWRA Models**eTable 4.** CABG Patients 65 Years and Older: Coefficients From IPWRA Models**eTable 5.** GI Hemorrhage Patients Less Than 65 Years of Age: Coefficients From IPWRA Models**eTable 6.** GI Hemorrhage Patients 65 Years and Older: Coefficients From IPWRA Models**eTable 7.** HF Patients Less Than 65 Years of Age: Coefficients From IPWRA Models**eTable 8.** HF Patients 65 Years and Older: Coefficients From IPWRA Models**eTable 9.** Pneumonia Patients Less Than 65 Years of Age: Coefficients From IPWRA Models**eTable 10.** Pneumonia Patients 65 Years and Older: Coefficients From IPWRA Models**eTable 11.** Stroke Patients Less Than 65 Years of Age: Coefficients From IPWRA Models**eTable 12.** Stroke Patients 65 Years and Older: Coefficients From IPWRA Models**eTable 13.** Balance of Covariates in Mortality Model for AMI**eTable 14.** Balance of Covariates in Mortality Model for CABG**eTable 15.** Balance of Covariates in Mortality Model for GI Hemorrhage**eTable 16.** Balance of Covariates in Mortality Model for HF**eTable 17.** Balance of Covariates in Mortality Model for Pneumonia**eTable 18.** Balance of Covariates in Mortality Model for Stroke**eTable 19.** In-Hospital Mortality: Average Treatment Effects (ATE) and Predicted Probability/Mean for VA Hospitals From IPWRA Models**eTable 20.** Results From IPWRA Models Including Only Nonelective Hospitalizations**eTable 21.** Results From IPWRA Models With One Observation per Patient and Standard Errors Adjusted for Clustering Within Hospital**eTable 22.** ICD-9 and ICD-10 Codes for Admitting Condition and Comorbidities

SUPPLEMENT 3.

Data Sharing Statement

Potentially Avoidable Hospitalizations After Chemotherapy: Differences Across Medicare and the Veterans Health Administration

Risha Gidwani-Marszowski, DrPH^{1,2,3}; Katherine Faricy-Anderson, MD, MPH^{4,5}; Steven M. Asch, MD^{2,6}; Samantha Illarmo, MPH¹; Lakshmi Ananth, MS¹; and Manali I. Patel, MD, MS^{7,8}

BACKGROUND: The Centers for Medicare and Medicaid Services (CMS) has released quality measures regarding potentially avoidable hospitalizations visits in the 30 days after receipt of outpatient chemotherapy. This study evaluated the proportions of patients treated by Medicare-reimbursed clinicians and Veterans Health Administration (VA) clinicians who experienced avoidable acute care in order to evaluate differences in health system performance. **METHODS:** This retrospective evaluation of Medicare and VA administrative data used a cohort of cancer decedents (fiscal years 2010–2014). Cohort members were veterans aged 66 years or older at death who were dually enrolled in Medicare and the VA. Chemotherapy was identified through *International Classification of Diseases, Ninth Revision* and *Current Procedural Terminology (ICD-9)* codes. CMS defines avoidable hospitalizations as those related to anemia, dehydration, diarrhea, emesis, fever, nausea, neutropenia, pain, pneumonia, or sepsis in the 30 days after chemotherapy. Following CMS guidance, this study compared the proportions of patients with potentially avoidable hospitalizations, using hierarchical generalized estimating equations. **RESULTS:** There were 27,443 patients who received outpatient chemotherapy. Patients receiving Medicare chemotherapy were significantly more likely to have potentially avoidable hospitalizations than patients receiving VA chemotherapy (adjusted odds ratio, 1.58; 95% confidence interval, 1.41–1.78; $P < .001$). In predicted estimates, 7.1% of Medicare-treated veterans had potentially avoidable hospitalizations in the 30 days after chemotherapy, compared with 4.6% of VA-treated veterans. **CONCLUSIONS:** Results indicate veterans with cancer receiving chemotherapy in the VA have higher quality care with respect to avoidable hospitalizations than veterans receiving chemotherapy through Medicare. As more veterans seek care in the private sector under the Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act, concerted efforts may be warranted to ensure that veterans do not experience a decline in care quality. *Cancer* 2020;126:3297–3302. © 2020 American Cancer Society.

KEYWORDS: Medicare, quality of health care, veterans.

INTRODUCTION

Nearly 40% of Americans will be diagnosed with cancer at some point in their lives,¹ with that figure expected to grow as the population ages. This increase in cancer prevalence will be accompanied by a greater number of patients receiving chemotherapy. In the past decades, there has been a steady increase in the use of chemotherapy in the United States,^{2,3} even in the face of oncology drug shortages⁴ in the outpatient setting.⁵

Despite chemotherapy's life-prolonging and/or palliative benefits, its toxic side effects can result in serious health consequences for patients, requiring emergency department visits and/or hospitalizations. These unplanned acute care visits increase costs incurred by both the patient and the health care system^{6,9} and are likely undesirable from a patient perspective. Patients with advanced cancer who receive chemotherapy are at increased risk for hospitalization,¹⁰ which is especially true for patients with a larger number of comorbidities.¹¹ Chemotherapy-related adverse events can be severe but can often be predicted and managed with appropriate treatment.^{12–14}

In recognition that many of the side effects of chemotherapy can be appropriately managed to avoid acute care utilization, the Centers for Medicare and Medicaid Services (CMS) released a new quality measure (OP-35) to reduce potentially avoidable hospital admissions and emergency department visits among patients receiving outpatient chemotherapy. In this study, we use the CMS measure to compare the quality of care received by chemotherapy patients treated through traditional fee-for-service Medicare versus the Veterans Health Administration (VA).

Corresponding Author: Risha Gidwani-Marszowski, DrPH, VA Palo Alto Health Care System, Health Economics Resource Center, 795 Willow Road, Menlo Park, CA 94025-2595 (rgidwani@stanford.edu).

¹Health Economics Resource Center, VA Palo Alto Health Care System, Menlo Park, California; ²Center for Innovation to Implementation, VA Palo Alto Health Care System, Menlo Park, California; ³Department of Health Management and Policy, UCLA School of Public Health, Los Angeles, California; ⁴Providence VA Medical Center, Providence, Rhode Island; ⁵Alpert Medical School, Brown University, Providence, Rhode Island; ⁶Division of Primary Care and Population Health, Stanford University School of Medicine, Stanford, California; ⁷VA Palo Alto Health Care System, Palo Alto, California; ⁸Division of Oncology, Stanford University School of Medicine, Stanford, California

DOI: 10.1002/cncr.32896, **Received:** August 2, 2019; **Revised:** March 11, 2020; **Accepted:** March 19, 2020; **Published online** May 13, 2020 in Wiley Online Library (wileyonlinelibrary.com)

Our interest in comparing the quality of cancer care provided by Medicare and the VA is driven by recent legislation (the Choice Act of 2014 and the Maintaining Internal Systems and Strengthening Integrated Outside Networks [MISSION] Act of 2018) allowing veterans to seek care in the private sector if care in the VA is difficult to access. As these policy changes are implemented, it will be critical to understand whether this shift in the system of care will affect care quality, especially for conditions as serious as cancer. Veterans who are 65 years old or older are dually eligible for benefits through Medicare, with more than 90% of them enrolled in Medicare.¹⁵ Use of this dually eligible cohort thus allows us to compare a similar group of patients across the 2 systems to understand the impact of the system of care (Medicare or the VA) on care quality. Here, we ascertain the incidence of potentially avoidable inpatient admissions for patients receiving outpatient chemotherapy and evaluate any quality-of-care differences that exist between the VA and Medicare.

MATERIALS AND METHODS

Using VA and Medicare administrative data for fiscal years 2010-2014, we evaluated potentially avoidable hospitalizations for veterans who died of solid tumors. To be included in the study, cohort members had to be aged 66 years or older at death, have a cancer diagnosis for at least 1 year, be continuously enrolled in the VA and Medicare Parts A and B in the 12 months before death, and have received intravenous chemotherapy. A cancer cause of death was determined with the underlying cause-of-death field from National Death Index data.¹⁶

We identified outpatient chemotherapy and potentially avoidable hospitalizations in both Medicare and VA administrative data sets in accordance with guidance from CMS.¹⁷ In Medicare data, we identified chemotherapy and hospitalizations from the Outpatient files. We also searched inpatient records from the Medicare Provider Analysis and Review (MedPAR) files for chemotherapy claims from outpatient clinics bundled in the inpatient claims.¹⁷ In VA data, we identified chemotherapy by using the Medical SAS Outpatient files. Following the CMS measure methodology, we did not include oral chemotherapy.¹⁷

This CMS measure defines the following as potentially avoidable inpatient admissions: anemia, dehydration, diarrhea, emesis, fever, nausea, neutropenia, pain, pneumonia, and sepsis within 30 days of the receipt of outpatient chemotherapy.¹⁸ Per CMS guidance, avoidable

hospitalizations were identified through primary or secondary *International Classification of Diseases, Ninth Revision (ICD-9)* codes, and chemotherapy was identified through *ICD-9, Current Procedural Terminology*, Healthcare Common Procedure Coding System, or Revenue Center codes.

We compared the proportions of patients with chemotherapy visits in Medicare and the VA that were followed by a preventable hospital admission within 30 days. Following CMS recommendations, we excluded from the outcome patients with inpatient admissions that CMS considered “always planned”: those for bone marrow or organ transplant, maintenance chemotherapy or radiotherapy, or rehabilitation care.¹⁷ Our observation period, that is, the length of time that patients were evaluated for chemotherapy, was each patient’s last year of life. Each patient was assigned to the system (VA or Medicare) that provided his chemotherapy. In our cohort, 908 patients (representing 1% of all patients) received chemotherapy via both the VA and Medicare in the observation period; we dropped these 908 patients from the analysis. In accordance with CMS guidance, for patients who had an inpatient admission with multiple potentially avoidable hospitalizations (either more than 1 hospitalization within 30 days of a single treatment or multiple treatments followed by multiple hospitalizations), we counted only the first hospitalization. If a patient was admitted for more than 1 preventable reason, we considered the primary diagnosis to be the reason for the hospitalization. Outcomes were evaluated with a generalized estimating equation with a logit link and a binomial family, with patients nested within geographic area (hospital referral region). Our model adjusted for patient age, number of chemotherapy treatments, receipt of concurrent radiotherapy (defined as radiotherapy within 14 days of the receipt of chemotherapy), and cancer type. To address a possible health care system selection bias, in sensitivity analyses, we ran a separate regression model including covariates previously shown to explain the selection of veterans into the VA or Medicare: enrollment priority (which includes VA copayment status), race, rurality, and distance from a VA facility.¹⁹⁻²²

To properly compare VA and Medicare data, we made the following adjustments to the CMS measure. First, the CMS measure compares observed rates with expected rates for each hospital. Because our goal was to compare health system performance (VA vs Medicare) rather than performance across hospitals, we instead compared observed VA and Medicare outcomes. Second, the CMS measure risk-adjusts for 9

types of comorbidities. Because evidence indicates that Medicare data are significantly more likely to capture comorbidities for the same patients than VA data,²³⁻²⁶ we excluded comorbidities from the analysis so as not to disadvantage the VA and improperly risk-adjust. Third, we excluded sex as a covariate because our elderly veteran sample was entirely male.

This study was approved by the Stanford University Institutional Review Board.

RESULTS

Our cohort consisted of 27,443 dually enrolled veterans, with 9522 (34.7%) receiving chemotherapy through the VA and 17,921 (65.3%) receiving chemotherapy through Medicare (Table 1). VA-treated veterans had a median of 5 chemotherapy treatments in the year before death (interquartile range, 2-10), and Medicare-treated veterans had a median of 7 chemotherapy treatments in the same time period (interquartile range, 3-14).

There were 1715 patients with avoidable hospitalizations (6.2%). In the entire cohort, the top reasons for an avoidable hospitalization were pneumonia (40.8%), sepsis (23.7%), anemia (21.1%), and pain (11.3%), although the order of their frequency changed in the Medicare group versus the VA group (Table 2).

Regression results revealed that Medicare-treated veterans were more likely to have potentially avoidable hospitalizations after chemotherapy than VA-treated veterans (adjusted odds ratio, 1.58; 95% confidence interval, 1.41-1.78; $P < .001$; Table 3). In predicted estimates, 7.1% of Medicare-treated veterans had potentially avoidable hospitalizations after chemotherapy, whereas 4.6% of VA-treated veterans did. In sensitivity analyses adding covariates that adjusted for selection into the VA versus Medicare (race, rurality, distance from a VA facility, and enrollment priority), results did not change materially; Medicare-treated veterans were still more likely to experience potentially avoidable hospitalizations (adjusted odds ratio, 1.55; 95% confidence interval, 1.37-1.66; $P > .001$).

DISCUSSION

We found significant variations in potentially avoidable acute care in the 30 days after chemotherapy in patients with cancer treated by Medicare versus the VA. Specifically, patients using Medicare for their chemotherapy were more likely to have avoidable hospitalizations than patients receiving chemotherapy through the VA. These variations in potentially avoidable acute care use are particularly noteworthy because of the recent policy changes (Choice Act

TABLE 1. Demographics

	Overall	Medicare	VA
Race, No. (%)			
American Indian/Alaska Native	80 (0.3)	47 (0.3)	33 (0.3)
Asian/Hawaiian/Pacific Islander	240 (0.9)	154 (0.9)	86 (0.9)
Black	2351 (8.6)	991 (5.5)	1360 (14.3)
Mixed	135 (0.5)	67 (0.4)	68 (0.7)
White	24,445 (89.1)	16,530 (92.2)	7915 (83.1)
Missing	192 (0.7)	132 (0.7)	60 (0.6)
Cancer type, No. (%)			
Digestive	6259 (22.8)	4070 (22.7)	2189 (23.0)
Lymphoma	421 (1.5)	282 (1.6)	139 (1.5)
Other	2160 (7.9)	1424 (7.9)	736 (7.7)
Prostate	8746 (31.9)	6075 (33.9)	2671 (28.1)
Respiratory	9229 (33.6)	5665 (31.6)	3564 (37.4)
Secondary solid	628 (2.3)	405 (2.3)	223 (2.3)
Rural status, No. (%)			
Rural	15,470 (56.4)	10,072 (56.2)	5398 (56.7)
Nonrural	11,973 (43.6)	7849 (43.8)	4124 (43.3)
Age, No. (%)			
66 to <71 y	6601 (24.1)	2964 (16.5)	3637 (38.2)
71 to <76 y	4696 (17.1)	2833 (15.8)	1863 (19.6)
76 to <81 y	5976 (21.8)	4304 (24.0)	1672 (17.6)
81 to <86 y	5372 (19.6)	4118 (23.0)	1254 (13.2)
86 to <91 y	3673 (13.4)	2834 (15.8)	839 (8.8)
≥91 y	1125 (4.1)	868 (4.8)	257 (2.7)
VA copayment-eligible, No. (%)			
Yes	9894 (36.1)	8177 (45.6)	1719 (18.1)
No	17,543 (63.9)	9738 (54.3)	7803 (81.9)
Missing	6 (0.0)	6 (0.0)	0 (0.0)
Chemotherapy visits, median (IQR)	6 (3-12)	7 (3-14)	5 (2-10)
Total, No. (%)	27,443 (100)	17,921 (100)	9522 (100)

Abbreviations: IQR, interquartile range; VA, Veterans Health Administration.

TABLE 2. Descriptive Statistics: Avoidable Hospitalizations

Avoidable Hospitalization	Overall, No. (%)	Medicare, No. (%)	VA, No. (%)
Anemia	361 (21.05)	255 (20.06)	106 (23.87)
Dehydration	16 (0.93)	12 (0.94)	4 (0.90)
Emesis	30 (1.75)	26 (2.05)	4 (0.90)
Pain	194 (11.31)	121 (9.52)	73 (16.44)
Pneumonia	699 (40.76)	520 (40.91)	179 (40.32)
Sepsis	407 (23.73)	329 (25.89)	78 (17.57)
Total	1715 (100)	1271 (100)	444 (100)

Abbreviation: VA, Veterans Health Administration.

Select categories have been omitted because of the cell size suppression policy of the Centers for Medicare and Medicaid Services; thus, cell sizes add up to figures lower than the totals reported in the last row.

and MISSION Act) in the VA that allow veterans to more readily obtain their cancer care in the private sector. These results suggest that veterans treated in the VA experience higher quality cancer care with respect to potentially avoidable hospitalizations than those treated in the private sector.

The most common reason for avoidable hospitalization in this cohort for both Medicare-treated veterans

TABLE 3. Regression Results: Avoidable Hospitalizations

	Adjusted Odds Ratio	95% Confidence Interval	P
Medicare-provided chemotherapy	1.58	1.41-1.78	<.001
Age			
71 to <76 y	1.03	0.89-1.19	.71
76 to <81 y	0.96	0.83-1.11	.55
81 to <86 y	0.86	0.74-1.01	.07
86 to <91 y	0.73	0.61-0.89	<.001
≥91 y	0.61	0.43-0.85	.00
Chemotherapy count	1.02	1.02-1.02	<.001
Concurrent radiotherapy	0.55	0.24-1.25	.16
Cancer type			
Lymphoma	0.70	0.41-1.19	.19
Other	1.39	1.14-1.70	<.001
Prostate	1.04	0.89-1.21	.64
Respiratory	1.63	1.43-1.87	<.001
Secondary	0.99	0.68-1.44	.96

and VA-treated veterans was pneumonia (unadjusted data: 40.9% and 40.3%, respectively; Table 2). Other common reasons for hospitalization were sepsis (25.9% in Medicare and 17.6% in the VA), anemia (20.1% in Medicare and 23.9% in the VA), and pain (9.5% in Medicare and 16.4% in the VA). Hospitalizations due to dehydration, diarrhea, and emesis were rare in our cohort. The higher proportion of admissions for pain within the VA in comparison with Medicare may reflect a difference in the use of pain treatment in the outpatient setting among veterans treated within the VA or could represent a higher likelihood for admission for veterans suffering from pain. For example, the VA may be more likely to admit veterans to link them with inpatient palliative care teams in areas with a lower supply of outpatient palliative care. Another possible reason may be VA's policy toward concurrent care, which allows patients to receive chemotherapy and hospice care simultaneously. Although research indicates that only 16% to 24% of VA patients with cancer use concurrent care,²⁷ it is plausible that these patients would experience fewer hospitalizations for acute issues if their hospice enrollment caused them to be monitored more frequently. Further research is needed to better understand what may be driving these differences in etiologies for hospitalization.

Our findings highlight the importance of understanding health system variations in the frequency of unplanned hospital visits that could potentially be avoidable in the 30 days after chemotherapy.

We found a lower likelihood of potentially avoidable hospitalization than was ascertained by CMS when constructing the quality measure for potentially

preventable hospitalizations.¹⁷ The CMS measure found that 14% of outpatient chemotherapy visits were followed by potentially avoidable hospitalizations within 30 days, whereas we found that 7.6% of Medicare-treated veterans and 4.6% of VA-treated veterans had potentially avoidable hospitalizations. Our cohort consisted of cancer decedents in their last year of life; these patients may have been more likely to be heavily monitored or have access to palliative or hospice services that could assist in avoiding hospitalizations than the general cancer cohort studied in the CMS guidance documents. Nevertheless, our figures point to opportunities for improvement in the care of patients receiving outpatient chemotherapy, especially in Medicare facilities. The CMS measure will be used for payment determinations beginning in 2020; these changing financial incentives may provide an impetus to Medicare providers to identify ways to reduce this unnecessary acute care use.

Reducing unnecessary hospital use among patients receiving chemotherapy is important not only for improving the patient experience of care but also for ensuring reductions in costs of care. Other work has found that hospitalization is the largest driver of spending variation and the biggest contributor to Medicare spending for patients with cancer, representing 67% of spending variation and 48% of total spending. In comparison, chemotherapy accounted for 10% of spending variation and 16% of total spending.²⁸ The results of our study reflect the wider policy movement in oncology to improve quality-of-care delivery and reduce avoidable acute care use. Several efforts, including our own work,²⁹ demonstrate high rates of acute care use due to avoidable and preventable etiologies.

Our findings of variations across the VA and Medicare, specifically the lower use of hospitalizations among VA patients, are consistent with our prior work in this area²⁷ demonstrating reduced utilization of acute care services among patients who primarily use the VA for their cancer care. The better performance in the VA may be partially due to the integrated nature of VA care. Shared electronic medical records and coordinated care between multiple providers and staff may enable improved coordination and communication and thus lead to a better assessment of whether a patient's symptom severity is an acute development or baseline state. This coordination may result in an increased ability to manage symptoms on an outpatient basis and reduce the need for hospital admission. In other nonintegrated systems, there may be a lack of familiarity with the patient's baseline symptomatology and a lower threshold to admit.

The results of our study must be interpreted in the context of certain limitations. Our objective was to compare the care provided by the VA and Medicare to veterans with cancer to ascertain differences due to the health system. Veterans were not randomly assigned to a system; therefore, there may be unmeasured differences in the kinds of veterans who choose to seek care in the VA versus Medicare that also affect the likelihood of potentially avoidable hospitalization. We controlled for this by including in regression models variables that had been previously shown to influence selection into the VA or Medicare. However, some residual unmeasured differences may remain, especially because we were not able to control for comorbidities on account of their differential capture across the VA and Medicare. Other work has found that veterans treated by the VA have poorer self-reported health than veterans treated outside the VA and are far more likely to have multiple comorbidities.³⁰ Thus, if high-quality administrative comorbidity data were available for inclusion in this analysis, it is possible that the magnitude of effect detected would be even larger. Moreover, per CMS guidance, we evaluated only chemotherapy found in the Medicare Outpatient and MedPAR files. From our previous work, we know that (unique) chemotherapy administration can also be identified from the Medicare Carrier file. The Carrier file contains information about both inpatient and outpatient chemotherapy; the CMS measure that we evaluate here focuses only on outpatient chemotherapy. Therefore, we did not include data from the Medicare Carrier file to maintain fidelity to the CMS measure and to not inadvertently include inpatient chemotherapy in our analyses. This exclusion likely undercounted outpatient chemotherapy and subsequent potentially avoidable hospitalizations from Medicare data. In that case, our estimates of Medicare potentially avoidable hospitalizations are conservative, and the differences between the VA and Medicare would be larger than those reported here.

Due to the Choice and MISSION Acts, veterans, especially those older than 65 years, will increasingly have an opportunity to receive care in the private sector. For veterans receiving chemotherapy, this may expose them to more inpatient stays. Our work indicates that the likelihood of potentially avoidable hospitalizations for veterans with cancer is higher for those treated in Medicare versus those treated by the VA. However, this may be mitigated or eliminated if Medicare hospitals respond to the financial incentives accompanying this quality measure, which will be implemented in 2020.

FUNDING SUPPORT

This work was supported by Merit Review Award I01 HX001627 from the Health Services Research and Development Service of the Office of Research and Development of the US Department of Veterans Affairs. Support for Veterans Health Administration/Centers for Medicare and Medicaid Services data was provided by the VA Information Resource Center (VIREC) of the Health Services Research and Development Service of the US Department of Veterans Affairs (project numbers SDR 02-237 and 98-004). The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the US Department of Veterans Affairs or the US government.

CONFLICT OF INTEREST DISCLOSURES

Samantha Illarmo and Lakshmi Ananth are employees of the US Department of Veterans Affairs. The other authors made no disclosures.

AUTHOR CONTRIBUTIONS

Risha Gidwani-Marszowski: Conceptualization, data curation, formal analysis, funding acquisition, investigation, methodology, writing—original draft, and writing—review and editing. **Katherine Faricy-Anderson:** Conceptualization, methodology, and writing—review and editing. **Steven M. Asch:** Conceptualization, methodology, and writing—review and editing. **Samantha Illarmo:** Data curation, methodology, project administration, writing—original draft, and writing—review and editing. **Lakshmi Ananth:** Data curation, writing—original draft, and writing—review and editing. **Manali I. Patel:** Conceptualization, methodology, and writing—review and editing.

REFERENCES

1. National Cancer Institute. Cancer statistics. Updated April 27, 2018. Accessed July 10, 2019. <https://www.cancer.gov/about-cancer/understanding/statistics>
2. Lang K, Marciniak MD, Faries D, et al. Trends and predictors of first-line chemotherapy use among elderly patients with advanced non-small cell lung cancer in the United States. *Lung Cancer*. 2009;63:264-270.
3. Mariotto A, Feuer EJ, Harlan LC, Wun LM, Johnson KA, Abrams J. Trends in use of adjuvant multi-agent chemotherapy and tamoxifen for breast cancer in the United States: 1975-1999. *J Natl Cancer Inst*. 2002;94:1626-1634.
4. Alpert A, Jacobson M. Impact of oncology drug shortages on chemotherapy treatment. *Clin Pharmacol Ther*. 2019;106:415-421.
5. Soni A. Statistical Brief #443: Trends in Use and Expenditures for Cancer Treatment Among Adults 18 and Older, U.S. Civilian Noninstitutionalized Population, 2001 and 2011. Accessed July 31, 2019. https://meps.ahrq.gov/data_files/publications/st443/stat443.shtml
6. Wong W, Yim YM, Kim A, et al. Assessment of costs associated with adverse events in patients with cancer. *PLoS One*. 2018;13:e0196007.
7. Hurvitz S, Guerin A, Brammer M, et al. Investigation of adverse-event-related costs for patients with metastatic breast cancer in a real-world setting. *Oncologist*. 2014;19:901-908.
8. Rashid N, Koh HA, Baca HC, Lin KJ, Malecha SE, Masquel A. Economic burden related to chemotherapy-related adverse events in patients with metastatic breast cancer in an integrated health care system. *Breast Cancer (Dove Med Press)*. 2016;8:173-181.
9. Hansen RN, Ramsey SD, Lalla D, et al. Identification and cost of adverse events in metastatic breast cancer in taxane and capecitabine based regimens. *Springerplus*. 2014;3:259.
10. O'Neill CB, Atoria CL, O'Reilly EM, et al. ReCAP: hospitalizations in older adults with advanced cancer: the role of chemotherapy. *J Oncol Pract*. 2016;12:151-152.
11. Hassett MJ, Rao SR, Brozovic S, et al. Chemotherapy-related hospitalization among community cancer center patients. *Oncologist*. 2011;16:378-387.
12. Extermann M, Boler I, Reich RR, et al. Predicting the risk of chemotherapy toxicity in older patients: the Chemotherapy Risk Assessment Scale for High-Age Patients (CRASH) score. *Cancer*. 2012;118:3377-3386.

13. Nie X, Liu D, Li Q, Bai C. Predicting chemotherapy toxicity in older adults with lung cancer. *J Geriatr Oncol*. 2013;4:334-339.
14. Brooks GA, Kansagra AJ, Rao SR, Weitzman JI, Linden EA, Jacobson JO. A clinical prediction model to assess risk for chemotherapy-related hospitalization in patients initiating palliative chemotherapy. *JAMA Oncol*. 2015;1:441-447.
15. Huang G, Muz B, Kim S, Gasper J. 2017 Survey of Veteran Enrollees' Health and Use of Health Care. Published April 2018. Accessed May 9, 2019. https://www.va.gov/HEALTHPOLICYPLANNING/SOE2017/VA_Enrollees_Report_Data_Findings_Report2.pdf
16. Center of Excellence for Suicide Prevention. Joint Department of Veterans Affairs (VA) and Department of Defense (DoD) Suicide Data Repository—National Death Index (NDI). Extracted February 22, 2017. Accessed April 28, 2020. <http://vawww.virec.research.va.gov/Mortality/Overview.htm>
17. Yale New Haven Health Services Corporation – Center for Outcomes Research and Evaluation. Accessed April 28, 2020. <https://www.qualitynet.org/outpatient/measure/chemotherapy/methodology>
18. QualityNet. Chemotherapy measure (OP-35). Accessed August 2, 2019. <https://www.qualitynet.org/outpatient/measure/chemotherapy/methodology>
19. Liu CF, Manning WG, Burgess JF Jr, et al. Reliance on Veterans Affairs outpatient care by Medicare-eligible veterans. *Med Care*. 2011;49:911-917.
20. Petersen LA, Byrne MM, Daw CN, Hasche J, Reis B, Pietz K. Relationship between clinical conditions and use of Veterans Affairs health care among Medicare-enrolled veterans. *Health Serv Res*. 2010;45:762-791.
21. Humensky J, Carretta H, de Groot K, Brown MM, Tarlov E, Hynes DM. Service utilization of veterans dually eligible for VA and Medicare fee-for-service: 1999-2004. *Medicare Medicaid Res Rev*. 2012;2:mmrr.002.03.a06.
22. Hynes DM, Koelling K, Stroupe K, et al. Veterans' access to and use of Medicare and Veterans Affairs health care. *Med Care*. 2007;45:214-223.
23. Byrne MM, Kuebler M, Pietz K, Petersen LA. Effect of using information from only one system for dually eligible health care users. *Med Care*. 2006;44:768-773.
24. Rosen AK, Gardner J, Montez M, Loveland S, Hendricks A. Dual-system use: are there implications for risk adjustment and quality assessment? *Am J Med Qual*. 2005;20:182-194.
25. Tseng CL, Greenberg JD, Helmer D, et al. Dual-system utilization affects regional variation in prevention quality indicators: the case of amputations among veterans with diabetes. *Am J Manag Care*. 2004;10(11 pt 2):886-892.
26. Gidwani-Marszowski R, Boothroyd DB, Illarino S, Asch S. Comorbidity assessment is uneven across VA and Medicare for the same patient: implications for risk-adjustment. Published online March 23, 2020. Accessed January 15, 2020. https://journals.lww.com/lww-medicalcare/Abstract/9000/Comorbidity_Assessment_Is_Uneven_Across_Veterans.98300.aspx
27. Mor V, Joyce NR, Cote DL, et al. The rise of concurrent care for veterans with advanced cancer at the end of life. *Cancer*. 2016;122:782-790.
28. Brooks GA, Li L, Uno H, Hassett MJ, Landon BE, Schrag D. Acute hospital care is the chief driver of regional spending variation in Medicare patients with advanced cancer. *Health Aff (Millwood)*. 2014;33:1793-1800.
29. Patel MI, Williams DC, Wohlforth C, Fisher G, Wakelee HA, Blayney DW. Are patients with thoracic malignancies at risk for uncontrolled symptoms? *J Oncol Pract*. 2015;11:e98-e102.
30. Agha Z, Lofgren RP, VanRuiswyk JV, Layde PM. Are patients at Veterans Affairs medical centers sicker? A comparative analysis of health status and medical resource use. *Arch Intern Med*. 2000;160:3252-3257.

Rand Health Q. 2023 Jun; 10(3): 9.

Published online 2023 Jun 16.

PMCID: PMC10273892

PMID: [37333666](#)

The Promise and Challenges of VA Community Care: Veterans' Issues in Focus

[Petra Rasmussen](#) and [Carrie M. Farmer](#)

[Copyright](#) © 2023 RAND Corporation

Short abstract

The U.S. Department of Veterans Affairs contracts with private-sector providers to help ensure that eligible veterans receive timely health care. This care can alleviate access barriers for veterans, but questions remain about its cost and quality.

Keywords: Military Veterans, Veterans Health Care

Abstract

Despite an overall decline in the U.S. veteran population, the number of veterans using VA health care has increased. To deliver timely care to as many eligible veterans as possible, VA supplements the care delivered by VA providers with private-sector community care, which is paid for by VA and delivered by non-VA providers. Although community care is a potentially important resource for veterans facing access barriers and long wait times for appointments, questions remain about its cost and quality. With recent expansions in veterans' eligibility for community care, accurate data are critical to policy and budget decisions and ensuring that veterans receive the high-quality health care they need.

The Veterans Health Administration (VHA) is the part of the U.S. Department of Veterans Affairs (VA) that provides health care to eligible veterans. VHA is an integrated health care system that includes 171 medical centers and 1,113 outpatient sites ([U.S. Department of Veterans Affairs, 2022e](#)). In 2021, more than 9.2 million veterans (roughly half of all living U.S. veterans) were enrolled in VHA, and around 6.8 million received care through VHA ([Congressional Budget Office, 2021](#); [Schaeffer, 2021](#); [U.S. Department of Veterans Affairs, 2022d](#)). On average, VHA's estimated spending was \$14,750 per veteran patient in 2021 ([Congressional Budget Office, 2021](#)), which is similar to Medicare (\$14,348 per beneficiary in 2020) ([Boards of Trustees, 2021](#)).

Veterans who use VA health care (VHA patients) are a clinically complex group with a higher prevalence of serious health conditions than both nonveterans and veterans who do not use VA health care ([Eibner et al., 2015](#)). In part, this is a result of the eligibility criteria for VA health care benefits. Not all veterans are eligible; in general, eligibility is based on length of military service, having a health condition related to military service, and income. Eligible veterans are sorted into VHA enrollment priority groups, which determine whether and how much veterans must contribute financially to their care (see sidebar). Among veterans, VHA patients are more likely to have service-related injuries and chronic health problems, including traumatic brain injury, cancer, diabetes, hypertension, and posttraumatic stress disorder ([Eibner et al., 2015](#)).

Factors Determining Veterans' Eligibility and Priority for VHA Benefits

Veterans must first meet basic criteria to be eligible for VHA benefits.

- When military service began
- Duration of military service or active-duty service (for reserve and National Guard members)
- Conditions of discharge from the military
- Service-related conditions (e.g., disability, military sexual trauma)

Eligible veterans are assigned to 1 of 8 priority groups.

- Determines when a veteran is eligible for benefits and to what extent they contribute to the cost of their care
- Factors considered:
 - Military service history
 - Disability rating
 - Income level
 - Eligibility for Medicaid
 - Other benefits received (e.g., VA pension benefits)

SOURCE: [U.S. Department of Veterans Affairs, 2022c](#).

The VHA patient population is changing, however. Since 1980, eligibility for VA health care has expanded to cover more veterans, and although the overall veteran population has declined since that time, the number of veterans using VHA has increased. Prior RAND research estimated that, between 2014 and 2024, the number of U.S. veterans would decrease by 19 percent and their average age would increase, barring any major policy changes or large-scale conflicts ([Eibner et al., 2015](#)). There has also been a geographic shift in the veteran population, with more veterans living in the southern and western parts of the United States, a trend that is projected to continue and that mirrors trends in the U.S. population as a whole ([U.S. Department of Veterans Affairs, 2022a](#); [Kerns and Locklear, 2019](#)).

VHA patients rely on VHA the most for prescription drug benefits and inpatient visits following surgeries. Lower-income veterans, veterans without health care coverage from other sources, veterans with worse self-reported health, and rural veterans receive a higher-than-average proportion of their care from VHA ([Eibner et al., 2015](#)).

The Use of Community Care to Supplement VHA Care for Veterans

In 2014, following widespread media coverage of long wait times at VHA facilities, Congress passed the Veterans Access, Choice, and Accountability Act of 2014, also known as the Veterans Choice Act (Pub. L. 113-146, 2014). The Veterans Choice Program was an integral part of the Veterans Choice Act. It broadened the eligibility criteria for veterans who wanted or needed to access community care—care paid for by VHA but delivered by non-VHA providers. VA's Office of Community Care was established in 2015 to oversee the expansion of community care under the Veterans Choice Program. In 2018, the VA Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act was signed into law (Pub. L. 115-182, 2018). This legislation further expanded eligibility for community care and created a more permanent and consolidated community care program, known as the Veterans Community Care Program.

In 2015, RAND researchers conducted a series of assessments mandated by the Veterans Choice Act that involved identifying veteran demographics and health care needs, forecasting changes to the VHA patient population, analyzing VA health care capabilities, and measuring the quality of care provided by VHA compared with the private sector ([Farmer, Hosek, and Adamson, 2016](#)). RAND work has also highlighted some of the challenges that veterans may face in accessing VHA care directly, particularly as a result of geographic and transportation barriers. Although RAND researchers found that 93 percent of veterans lived within 40 miles' driving distance of a VHA facility as of 2015, only 55 percent were that close to a VHA medical center, which provides a more comprehensive array of services than other VHA facilities, and only 26 percent were within 40 miles of a VHA medical center with full specialty care ([Hussey et al., 2015](#)). RAND research found that most veterans received timely care (more than 90 percent had completed visits within 30 days of their preferred date for care, with the vast majority of these visits occurring within 14 days). However, the same analysis also found variations in timeliness across VHA facilities, with some veterans experiencing much longer than average wait times for care ([Hussey et al., 2015](#)). For veterans with limited access to a VHA facility or who are unable to access timely care, community care providers are a potentially important resource.

Community care has been a component of the health care provided to U.S. veterans since World War I, but its use significantly increased under the Veterans Choice and VA MISSION Acts. The laws expanded eligibility for community care such that every veteran enrolled in VA health care could qualify under certain circumstances ([Congressional Budget Office, 2021](#)). Veterans must meet one of the following eligibility criteria to access VHA-funded community care ([U.S. Department of Veterans Affairs, 2019](#)):

1. VHA facilities do not offer the services that the veteran needs.
2. The veteran resides in a state or territory without a full-service VHA medical facility.

3. The veteran was eligible under provisions that applied before the VA MISSION Act was signed (i.e., they qualify under “grandfathered” eligibility for community care).
4. The care or services that the veteran needs do not meet the access standards for appointment wait times or drive times.
5. A VHA provider and the veteran agree that receiving care from an outside provider is in the veteran's best interest.
6. The care or services that the veteran needs do not meet designated quality standards.

Since 2014, the number of veterans receiving community care has grown considerably, along with VA's budget for community care. In July 2022 testimony to the House Veterans' Affairs Committee, VA reported that community care accounted for 44 percent of its health care services across care settings ([LaPuz, 2022](#)).¹ [Figure 1](#) shows the number of veterans authorized for community care and the costs of community care over the period from 2014 to 2021. The total amount that VA has spent on community care has steadily increased, from \$7.9 billion in 2014 to \$18.5 billion in 2021 ([Congressional Budget Office, 2021](#); [U.S. Department of Veterans Affairs, 2022b](#)). As the costs for community care have risen, the share of the VHA budget that goes toward community care has also increased. In 2014, community care accounted for approximately 12 percent of VHA spending. However, this proportion had nearly doubled by 2021, with community care costs making up 20 percent of all VHA spending on medical care ([Congressional Budget Office, 2021](#)). VA's fiscal year 2023 budget request anticipated that community care would increase to 23 percent of the VHA medical care budget in 2023 and 25 percent in 2024 ([U.S. Department of Veterans Affairs, 2022b](#)).

Pressing Issues

The Veterans Choice and VA MISSION Acts placed a priority on giving veterans more flexibility in accessing care outside of VHA facilities. Although research has shown that VHA provides care that is equivalent to or higher in quality than what veterans receive from non-VHA providers ([Price et al., 2018](#)), worries about wait times and rural veterans' access to care have tarnished VHA's reputation in some circles ([Chan, Card, and Taylor, 2022](#); [Jones et al., 2021](#)).

Achieving the promises of community care requires coordination between VHA and non-VHA facilities and providers. As more data become available on veterans' health care use following the passage of the Veterans Choice and VA MISSION Acts, evaluations of community care must address several key questions that will be critical to policy and budget decisions ensuring that veterans have access to the health care they need.

The cost and quality of community care relative to VHA-delivered care are largely unknown.

As part of its annual budget request to Congress, VA projects demand for health care among VHA enrollees, which determines how much funding it requests for the delivery of that care. In general, these estimates are based on the cost of VHA-delivered care. However, little is known about how the costs of care provided directly by VHA compare with the costs of community care. If costs for community care are significantly higher than for VHA-delivered care and the number of veterans

receiving community care continues to increase, VA might need to implement cost controls, possibly by decreasing access to community care, increasing cost-sharing for certain veterans, or restricting VHA enrollment ([Kime, 2022](#)).

Although comparisons between the cost of VHA-delivered and community care are limited, there are some indications that community care may be more expensive than VHA-delivered care. VHA has the ability to manage and standardize the care that it delivers directly, but it is not able to manage veterans' care once they have been referred to community providers. VHA officials have reported that local community care practice patterns, such as a greater use of X-rays and other imaging services, were a driver of higher-than-estimated spending on community care in 2017 and 2018 ([Congressional Budget Office, 2021](#)). A recent analysis noted that VHA-delivered care costs less than comparable care from Medicare providers and produced better outcomes ([Chan, Card, and Taylor, 2022](#)).

Quality comparisons between care that veterans receive through the VA Community Care Network and care that they receive directly from VHA providers are also limited. A recent analysis by VA researchers found that, nationally, veterans who received total knee arthroplasties at a VHA facility had lower odds of readmission than those whose surgery had been performed by a community care provider ([Rosen et al., 2022](#)). Another analysis of complications following cataract surgery found no significant differences between VHA-provided care and community care ([Rosen et al., 2020](#)). Tracking the quality of care provided through the Community Care Network is necessary to identify whether and how the increased reliance on community care has affected veterans' outcomes. Community care puts VHA into the role of a payer for health care as opposed to its traditional role as an integrated health system, in which it functions as both provider and payer. As a payer, VHA can hold third-party administrators responsible for implementing and managing the Community Care Network and accountable for the quality and adequacy of community care providers. To do this, VHA needs to set quality standards and performance metrics and either require providers to report on their ability to meet those expectations or conduct its own evaluations.

VHA faces challenges with care coordination as more veterans receive care in the community.

VHA is an integrated health system, and care coordination is an essential element of its ability to serve patients. VHA was an early adopter of electronic health records, which it has used alongside other resources to manage the health of its patient population, such as care coordination teams that support veterans with complex symptoms or multiple health conditions ([Cordasco et al., 2019](#); [Garvin et al., 2021](#); [Miller et al., 2021](#)). The complexity of the VHA patient population makes care coordination critical for improving patient outcomes and decreasing costs. With the increased use of community care, VHA faces an additional coordination challenge: sharing and obtaining information from non-VHA providers. Poorly coordinated care between VHA and community care providers could result in confusion for patients, duplicative tests, increased costs, and lower-quality care. Research also suggests that the increased burden of coordinating care with non-VHA providers has resulted in higher rates of burnout among VHA primary care providers ([Apaydin et al., 2021](#)). To address these challenges, VA created the Office of Integrated Veteran Care in October 2021, with a focus on improving coordination across care settings ([U.S.](#)

[Department of Veterans Affairs, Office of Public and Intergovernmental Affairs, 2021](#)). Because this integrated care model is still being implemented and has not yet been established nationwide, it is not known whether and to what extent it will address care coordination challenges and improve care for veterans.

Data are limited, but access to community care may be no better than access to care at VHA facilities.

One of the driving forces behind the Veterans Choice and the MISSION Acts was a concern about veterans facing long wait times for VHA appointments. Although community care promised to reduce wait times and facilitate access to care, in practice, veterans have not always experienced shorter wait times for appointments. Before making an appointment, veterans must receive approval and a referral to community care from VHA. Once a veteran is deemed eligible for this treatment, VHA officials have no control over the wait time to see a community care provider ([Congressional Budget Office, 2021](#); [U.S. Government Accountability Office, 2020](#)). As the Congressional Budget Office has noted, community care providers are not required to meet the wait- and drive-time standards that apply to VHA facilities. The COVID-19 pandemic may have further exacerbated delays for veterans seeking community care by slowing down VHA's approval process and by prompting community care providers to limit the availability of appointments ([U.S. Government Accountability Office, 2021](#)).

One analysis of wait times for outpatient specialty care at VHA and community care facilities found that mean wait times decreased between 2015 and 2018 for both, with the greatest declines at VHA facilities. The study period aligned with the expansion of eligibility for community care among VHA-enrolled veterans under the Veterans Choice and VA MISSION Acts. By 2018, community care wait times were longer than VHA wait times ([Gurewich et al., 2021](#)). Other studies have similarly found that the timeliness of community care was no better or worse than VHA, suggesting that community care is unlikely to completely address the challenges that some veterans face in receiving timely care ([Kaul et al., 2021](#); [Dueker and Khalid, 2020](#)).

However, there may be certain populations of veterans for whom community care has significantly improved access. Prior research has found that rural veterans, who make up nearly half of VHA patients, are more likely to live in areas with provider shortages and hospital closures, and they generally have to drive greater distances to see providers ([Hussey et al., 2015](#); [Ohl et al., 2018](#)). Community care may improve access for veterans who live far from a VHA facility, which could help reduce disparities in access between urban and rural veterans ([Davila et al., 2021](#)); however, research on this topic has been limited.

Community care providers might not be equipped to meet the needs of veterans.

Veterans enrolled in VHA are a complex patient population with health care needs that differ from those of the nonveteran population, including higher rates of posttraumatic stress disorder, exposure to environmental toxins, and suicide ([Farmer et al., 2016](#)). VHA providers are well-versed in veteran culture and the conditions that are prevalent among veterans. Community care providers

may not have substantial experience caring for veterans and may not even realize that a given patient is a veteran ([Tanielian et al., 2014](#)). Lack of knowledge and understanding about veterans' unique experiences and health care needs is especially a concern for veterans who may be at risk for certain kinds of cancers as a result of their military service ([White House, 2022](#)), veterans who have experienced military sexual trauma, gender and sexual minority veterans, and other veterans who require specialized care.

VHA makes training available to community care providers to help increase their military/veteran cultural competency, familiarity with health care issues that are common among veterans, and aspects of specialized care. However, only a small proportion of community care providers have completed this training ([Farmer et al., 2022](#)), and VHA has no authority to require that they do so. Future evaluations of veterans' care should explore links between community care providers' familiarity with treating veterans and whether veteran patients' full set of needs are being met, regardless of where they receive care.

Directions for Future Research

The landscape of veterans' health care has changed with the passage of the Veterans Choice and VA MISSION Acts. Although the laws have the potential to improve access to care for some veterans, they have also introduced additional challenges to tracking and evaluating the timeliness, quality, and coordination of care that veterans receive. There are several potential directions for future research in this area:

- **Model community care access and utilization.** Existing data on demand for and utilization of community care could be used to assess historical trends (e.g., use of community care by veterans' demographic and geographic characteristics, types of care veterans receive from community care providers). These data could also be used to model future community care demand patterns, which would help VHA better prepare for the volume of care that patients could require, improve the accuracy of budget estimates, and allow for policy simulations to estimate the effect of potential policy changes, such as reforms to access standards.
- **Examine differences in health care quality and access between VHA-delivered and community care.** Policymakers must ensure that standards for community care are at least equal to those for VHA-delivered care. Veterans who see community care providers should be able to expect the same high quality of care that they receive from VHA providers. Researchers at VA and other organizations should work to establish methods to better compare care quality and wait times between VHA facilities and community care providers. Evaluating whether veterans receive equivalent standards of care also requires the creation and implementation of consistent quality measures that are comparable between VHA and community care providers.
- **Study differences in veterans' experiences with community care.** It is essential that researchers examine potential disparities in care outcomes and experiences across veteran populations, such as by gender, race/ethnicity, sexual orientation and gender identity, geography, and VHA priority group. Such analyses should look for disparities both across VHA facilities and community care providers and between these two sources of care.

- **Ask about community care providers' experiences in delivering care to veterans.** The perspectives of community care providers can help draw a more complete picture of the benefits and drawbacks of community care. Their perceptions of their readiness to treat veterans and the challenges they experience when working with VHA could also help inform policies and programs to improve care coordination and outreach efforts to increase community care providers' familiarity with veterans and their needs.

As Secretary of Veterans Affairs Denis McDonough recently stated, the future of VHA depends on its ability to attract veterans to its facilities and—through high-quality, accessible services—keep those veterans returning to VHA for their needed medical care ([McDonough and Steinhauer, 2022](#)). Coordinating with community care providers and ensuring that eligible veterans can access the high-quality care they need in a timely fashion, whether at VHA facilities or in the community, will be integral to achieving those goals.

Additional Resources

- VA provides comprehensive information (<https://www.va.gov/COMMUNITYCARE/programs/veterans/index.asp>) about community care for veterans, including
 - eligibility criteria
 - how to find community providers and make appointments
 - costs and billing
 - the Community Care Network (<https://www.va.gov/COMMUNITYCARE/programs/veterans/CCN-Veterans.asp>) of providers, which is divided into five regions.
- VA's Community Care Research Evaluation and Knowledge (CREEK) Center (<https://www.hsrp.research.va.gov/centers/creek/>) serves as a health care policy and data expertise hub.
- The two contractors for the VA Community Care Network, TriWest and Optum Serve, provide information for veterans about receiving care from the network:
 - TriWest (<https://www.triwest.com/en/veteran-services/>) serves veterans living in the western part of the United States.
 - Optum Serve (<https://www.vacommunitycare.com/>) serves veterans living in the eastern and southern parts of the United States.
- In October 2021, the Congressional Budget Office released an analysis of the Veterans Community Care Program that provides background on the program and evidence of its early effects (<https://www.cbo.gov/publication/57583>).
- A June 2021 special supplement of the journal *Medical Care* included 12 articles on VHA community care (<https://journals.lww.com/lww-medicalcare/toc/2021/06001>).

Notes

¹This does not include care that is available only through VHA facilities or only from community care providers (e.g., obstetrics, in the latter case). VA estimates that 73 percent of all health care services are available in both VHA facilities and community care settings (LaPuz, 2022).

Funding for this publication was made possible by a generous gift from Daniel J. Epstein through the Epstein Family Foundation, which established the RAND Epstein Family Veterans Policy Research Institute in 2021. The institute is dedicated to conducting innovative, evidence-based research and analysis to improve the lives of those who have served in the U.S. military. Building on decades of interdisciplinary expertise at the RAND Corporation, the institute prioritizes creative, equitable, and inclusive solutions and interventions that meet the needs of diverse veteran populations while engaging and empowering those who support them. For more information about the RAND Epstein Family Veterans Policy Research Institute, visit veterans.rand.org.

References

1. Apaydin Eric A., Rose Danielle E., McClean Michael R., Yano Elizabeth M., Shekelle Paul G., Nelson Karin M., and Stockdale Susan E. Association Between Care Coordination Tasks with Non-VA Community Care and VA PCP Burnout: An Analysis of a National, Cross-Sectional Survey *BMC Health Services Research* 2021;21(1), “.”, Vol., No., article 809. [PMCID: PMC8361617] [PubMed: 34384398]
2. Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds 2021 *Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, August 31, 2021., , Washington, D.C.,
3. Chan David C., Jr., Card David, and Taylor Lowell . *Is There a VA Advantage? Evidence from Dually Eligible Veterans*. Cambridge, Mass.: National Bureau of Economic Research; February 2022., : , Working Paper Series, No. 29765, ,
4. Congressional Budget Office *The Veterans Community Care Program: Background and Early Effects*, October 2021., , Washington, D.C.,
5. Cordasco Kristina M., Hynes Denise M., Mattocks Kristin M., Bastian Lori A., Bosworth Hayden B., and Atkins David Improving Care Coordination for Veterans Within VA and Across Healthcare Systems *Journal of General Internal Medicine* May 2019;34(1, Suppl. 1):1, “.”, Vol., No., pp. –. [PMCID: PMC6542920] [PubMed: 31098970]
6. Davila Heather, Rosen Amy K., Beilstein-Wedel Erin, Shwartz Michael, Chatelain Leslie, Jr., and Gurewich Deborah Rural Veterans’ Experiences with Outpatient Care in the Veterans Health Administration Versus Community Care *Medical Care* June 2021;59(6, Suppl. 3):S286, “.”, Vol., No., pp. –. [PMCID: PMC8132914] [PubMed: 33976078]
7. Dueker Jeffrey M., and Khalid Asif Performance of the Veterans Choice Program for Improving Access to Colonoscopy at a Tertiary VA Facility *Federal Practitioner* May 2020;37(5):224, “.”, Vol., No., pp. –. [PMCID: PMC7241610] [PubMed: 32454576]
8. Eibner Christine, Krull Heather, Brown Kristine M., Cefalu Matthew, Mulcahy Andrew W., Pollard Michael S., Shetty Kanaka, Adamson David M., Armaral Ernesto F. L., Armour Philip, et al. *Current and Projected Characteristics and Unique Health Care Needs of the Patient Population Served by the Department of Veterans Affairs*, Santa Monica, Calif.: RAND Corporation; 2015. https://www.rand.org/pubs/research_reports/RR1165z1.html., : , RR-1165/1-VA, . As of August 2022: [PMCID: PMC5158228] [PubMed: 28083423]

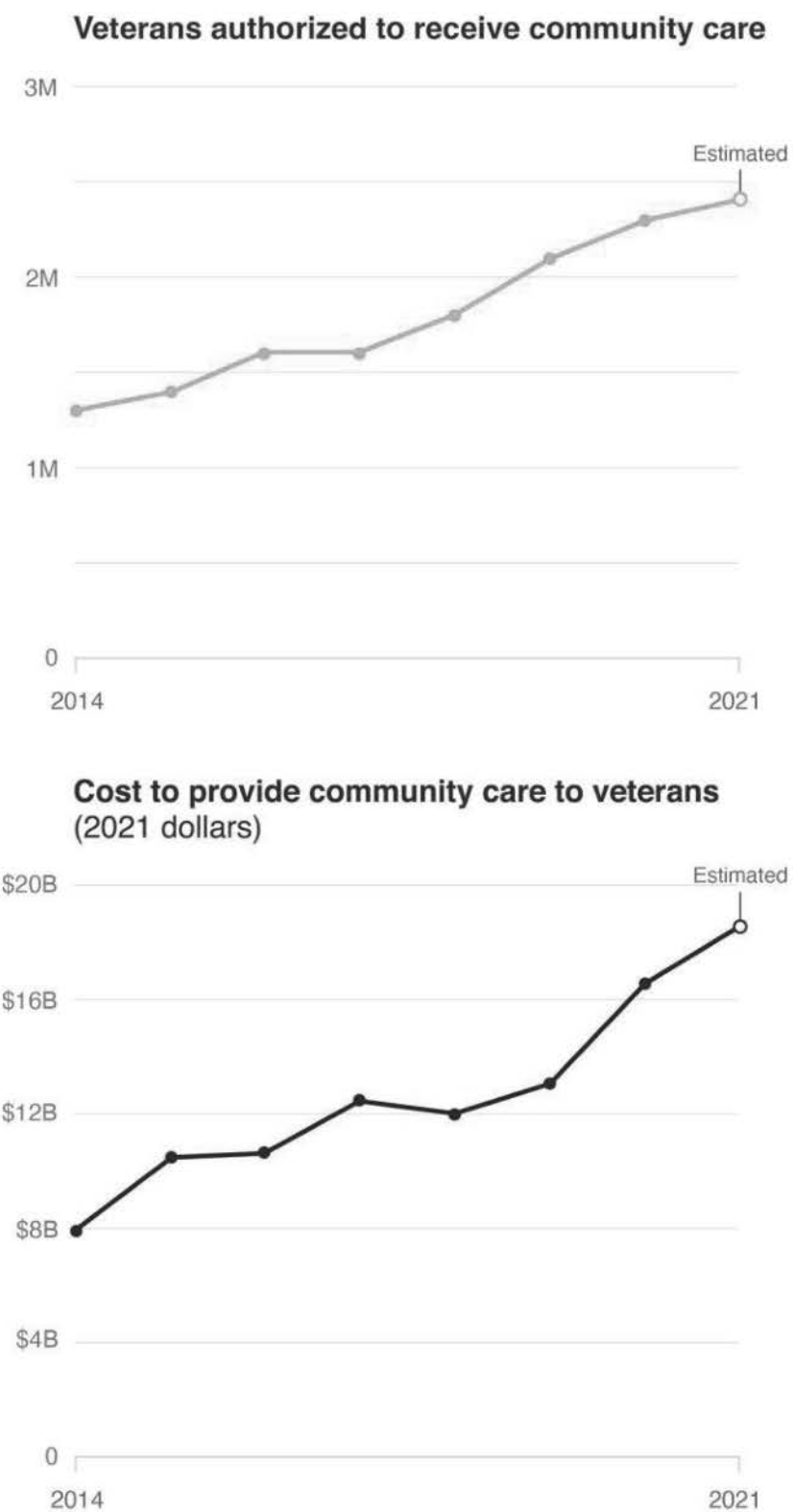
9. Farmer Carrie M., Hosek Susan D., and Adamson David M. *Balancing Demand and Supply for Veterans' Health Care: A Summary of Three RAND Assessments Conducted Under the Veterans Choice Act*. Santa Monica, Calif.: RAND Corporation; 2016. https://www.rand.org/pubs/research_reports/RR1165z4.html , , : , RR-1165/4-RC, . As of August 2022: [PMCID: PMC5158276] [PubMed: 28083440]
10. Farmer Carrie M., Smucker Sierra, Ernecoff Natalie, and Al-Ibrahim Hamad . *Recommended Standards for Delivering High-Quality Care to Veterans with Invisible Wounds*. Santa Monica, Calif.: RAND Corporation; 2022. https://www.rand.org/pubs/research_reports/RR1728-1.html , , : , RR-A1728-1, . As of August 2022:
11. Garvin Lynn A., Pugatch Marianne, Gurewich Deborah, Pendergast Jacquelyn N., and Miller Christopher J. Interorganizational Care Coordination of Rural Veterans by Veterans Affairs and Community Care Programs: A Systematic Review *Medical Care* June 2021;59(Suppl 3):S259. , “,” , Vol. , , , pp. – . . [PMCID: PMC8132902] [PubMed: 33976075]
12. Gurewich Deborah, Shwartz Michael, Beilstein-Wedel Erin, Davila Heather, and Rosen Amy K. Did Access to Care Improve Since Passage of the Veterans Choice Act? Differences Between Rural and Urban Veterans *Medical Care* June 2021;59(Suppl. 3):S270. , “,” , Vol. , , , pp. – . . [PMCID: PMC8132901] [PubMed: 33976076]
13. Hussey Peter S., Ringel Jeanne S., Ahluwalia Sangeeta C., Price Rebecca Anhang, Buttorff Christine, Concannon Thomas W., Lovejoy Susan L., Martsof Grant R., Rudin Robert S., Schultz Dana, et al. *Resources and Capabilities of the Department of Veterans Affairs to Provide Timely and Accessible Care to Veterans*. Santa Monica, Calif.: RAND Corporation; 2015. https://www.rand.org/pubs/research_reports/RR1165z2.html , , : , RR-1165/2-VA, . As of August 2022: [PMCID: PMC5158229] [PubMed: 28083424]
14. Jones Audrey L., Fine Michael J., Taber Peter A., Hausmann Leslie R. M., Burkitt Kelly H., Stone Roslyn A., and Zickmund Susan L. National Media Coverage of the Veterans Affairs Waitlist Scandal: Effects on Veterans' Distrust of the VA Health Care System *Medical Care* June 2021;59(Suppl. 3):S322. , “,” , Vol. , , , pp. – . . [PMCID: PMC8121177] [PubMed: 33976083]
15. Kaul Bhavika, Hynes Denise M., Hickok Alex, Smith Connor, Niederhausen Meike, Totten Annette M., Whooley Mary A., and Sarmiento Kathleen Does Community Outsourcing Improve Timeliness of Care for Veterans with Obstructive Sleep Apnea? *Medical Care* February 2021;59(2):111. , “.” , Vol. , No. , , pp. – . . [PMCID: PMC7899214] [PubMed: 33290324]
16. Kerns Kristin, and Locklear L. Slagan . *America Counts: Stories Behind the Numbers*. U.S. Census Bureau; April 29, 2019. Three New Census Bureau Products Show Domestic Migration at Regional, State, and County Levels <https://www.census.gov/library/stories/2019/04/moves-from-south-west-dominate-recent-migration-flows.html> , “,” , , . As of August 2022:
17. Kime Patricia *VA Weighs Limiting Access to Outside Doctors to Curb Rising Costs*. June 15, 2022. <https://www.military.com/daily-news/2022/06/15/va-weighs-limiting-access-outside-doctors-curb-rising-costs.html> , “,” Military.com, . As of August 2022:
18. LaPuz Miguel . *Acting Deputy Under Secretary of Veterans Affairs for Health, statement before the U.S. House of Representatives*. Committee on Veterans' Affairs, Subcommittee on Health; July 14, 2022. , , , ,
19. McDonough Denis R., and Steinhauer Jennifer . *A Conversation with VA Secretary McDonough on the Department's Recommendations to the Asset and Infrastructure Review Commission*. Santa Monica, Calif.: RAND Corporation; 2022. https://www.rand.org/pubs/conf_proceedings/CF1363-1.html , , event video and transcript, : , CF-A1363-1, . As of August 2022:

20. Miller Christopher, Gurewich Deborah, Garvin Lynn, Pugatch Marianne, Koppelman Elisa, Pendergast Jacquelyn, Harrington Katharine, and Clark Jack A. Veterans Affairs and Rural Community Providers' Perspectives on Interorganizational Care Coordination: A Qualitative Analysis *Journal of Rural Health* Spring 2021;37(2):417. , " , , Vol. , No. , , pp. - . . [PubMed: 32472724]
21. Ohl Michael E., Carrell Margaret, Thurman Andrew, Weg Marg Vander, Hudson Teresa, Mengeling Michelle, and Vaughan-Sarrazin Mary Availability of Healthcare Providers for Rural Veterans Eligible for Purchased Care Under the Veterans Choice Act *BMC Health Services Research* 2018;18(1) , " , , Vol. , No. , , article 315. [PMCID: PMC5972410] [PubMed: 29807536]
22. Price Rebecca Anhang, Sloss Elizabeth M., Cefalu Matthew, Farmer Carrie M., and Hussey Peter S. Comparing Quality of Care in Veterans Affairs and Non-Veterans Affairs Settings *Journal of General Internal Medicine* October 2018;33(10):1631. , " , , Vol. , No. , , pp. - . . [PMCID: PMC6153237] [PubMed: 29696561]
23. Public Law 113-146 *Veterans Access, Choice, and Accountability Act of 2014*. August 7, 2014. , , ,
24. McCain John S., III, Akaka Daniel K., and Samuel R., Johnson VA. Public Law 115-182 *Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act 2018*. June 6, 2018. , , ,
25. Rosen Amy K., Beilstein-Wedel Erin E., Harris Alex H. S., Shwartz Michael, Vanneman Megan E., Wagner Todd H., and Giori Nicholas J. Comparing Postoperative Readmission Rates Between Veterans Receiving Total Knee Arthroplasty in the Veterans Health Administration Versus Community Care *Medical Care* February 2022;60(2):178. , " , , Vol. , No. , , pp. - . . [PubMed: 35030566]
26. Rosen Amy K., Vanneman Megan E., O'Brien William J., Pershing Suzann, Wagner Todd H., Beilstein-Wedel Erin, Jeanie Lo, Chen Qi, Cockerham Glenn C., and Shwartz Michael Comparing Cataract Surgery Complication Rates in Veterans Receiving VA and Community Care *Health Services Research* October 2020;55(5):690. , " , , Vol. , No. , , pp. - . . [PMCID: PMC7518823] [PubMed: 32715468]
27. Schaeffer Katherine . *The Changing Face of America's Veteran Population*. Pew Research Center; April 5, 2021. <https://www.pewresearch.org/fact-tank/2021/04/05/the-changing-face-of-americas-veteran-population> , " , , . As of August 2022;
28. Tanielian Terri, Farris Coreen, Batka Caroline, Farmer Carrie M., Robinson Eric, Engel Charles C., Robbins Michael W., and Jaycox Lisa H. *Ready to Serve: Community-Based Provider Capacity to Deliver Culturally Competent, Quality Mental Health Care to Veterans and Their Families*. Santa Monica, Calif.: RAND Corporation; 2014. https://www.rand.org/pubs/research_reports/RR806.html , , : , RR-806-UNHF. . As of August 2022;
29. U.S. Department of Veterans Affairs *Veteran Community Care Eligibility*. August 30, 2019. https://www.va.gov/communitycare/docs/pubfiles/factsheets/va-fs_cc-eligibility.pdf , " , , factsheet. . As of August 2022;
30. U.S. Department of Veterans Affairs *VA Recommendations to the Asset and Infrastructure Review Commission, Vol. 1: Introduction, Approach and Methodology, and Outcomes*. March 2022a. , , Washington, D.C., .
31. U.S. Department of Veterans Affairs *FY 2023 President's Budget Request*. March 28, 2022b. <https://www.va.gov/budget/docs/summary/fy2023-va-budget-rollout-briefing.pdf> , " , , briefing, Washington, D.C., . As of August 2022;
32. U.S. Department of Veterans Affairs *Eligibility for VA Health Care*. April 19, 2022c. <https://www.va.gov/health-care/eligibility> , " , , webpage, last updated . . As of August 2022;

33. U.S. Department of Veterans Affairs. *VA Benefits and Health Care Utilization*. April 21, 2022d. <https://www.va.gov/vetdata/docs/pocketcards/fy2022q3.pdf> , “.,” factsheet, . As of August 2022:
34. U.S. Department of Veterans Affairs. *About VHA*. August 15, 2022e. <https://www.va.gov/health/aboutVHA.asp> , “.,” webpage, last updated . . As of August 2022:
35. U.S. Department of Veterans Affairs, Office of Public and Intergovernmental Affairs. *VA Embarks on Process to Design New Model to Deliver Seamless Integrated Care*. October 5, 2021. , “.,” press release, .
36. U.S. Government Accountability Office. *Veterans Community Care Program: Improvements Needed to Help Ensure Timely Access to Care*. September 2020. , , Washington, D.C., GAO-20-643, .
37. U.S. Government Accountability Office. *Veterans Community Care Program: VA Took Action on Veterans’ Access to Care, but COVID-19 Highlighted Continued Scheduling Challenges*. June 2021. , , Washington, D.C., GAO-21-476, .
38. White House. *President Biden Signs the PACT Act and Delivers on His Promise to America’s Veterans*. August 10, 2022. <https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/10/fact-sheet-president-biden-signs-the-pact-act-and-delivers-on-his-promise-to-americas-veterans> , “.,” factsheet, . As of August 2022:

Figures and Tables

Figure 1



Number of Veterans Eligible for VHA Funded Community Care Over Time and the Cost of Providing That Care

SOURCE: Congressional Budget Office, 2021, p. 7, Table 1. Estimated number of veterans authorized to receive community care in 2021 extrapolated from LaPuz, 2022. Estimated costs to provide community care in 2021 are from U.S. Department of Veterans Affairs, 2022b.

NOTE: The Congressional Budget Office's definition of community care includes inpatient, outpatient, dental, mental health, prosthetics, and rehabilitation services from non-VHA providers, as well as long-term support, such as through nursing homes, noninstitutional care, and state facilities and programs. Those data do not reflect certain other services supported through community care funding, such as those for caregivers and Camp Lejeune Family Member Program participants.

VA versus Non-VA Quality of Care: A Systematic Review

Updated April 2023

VA



U.S. Department of Veterans Affairs

Veterans Health Administration
Health Services Research & Development Service

Recommended citation: Shekelle P, Maggard-Gibbons M, Blegen M, et al. VA versus Non-VA Quality of Care: A Systematic Review. Washington, DC: Evidence Synthesis Program, Health Services Research and Development Service, Office of Research and Development, Department of Veterans Affairs. VA ESP Project #05-226; 2023.

AUTHORS

Author roles, affiliations, and contributions to the present report (using the [CRediT taxonomy](#)) are summarized in the table below.

Author	Role and Affiliation	Report Contribution
Paul Shekelle, MD, PhD, MPH	Director, VA Greater Los Angeles Evidence Synthesis Program (ESP) Center Los Angeles, CA	Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Resources, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing
Melinda Maggard-Gibbons, MD	Staff Surgeon, VA Greater Los Angeles Assistant Professor, Surgery UCLA School of Medicine Los Angeles, CA	Conceptualization, Formal analysis, Investigation, Methodology, Supervision, Validation, Writing – original draft, Writing – review & editing
Mariah Blegen, MD	Research Fellow, VA Greater Los Angeles Fellow, National Clinician Scholars Program, UCLA Los Angeles, CA	Conceptualization, Formal analysis, Investigation, Methodology, Validation, Visualization, Writing – original draft, Writing – review & editing
Eric Apaydin, PhD, MPP, MS	Core Investigator, Center for the Study of Healthcare Innovation, Implementation and Policy, VA Greater Los Angeles Los Angeles, CA	Conceptualization, Formal analysis, Investigation, Methodology, Validation, Visualization, Writing – original draft, Writing – review & editing
Neil Paige, MD, MSHS	Staff Physician, VA Greater Los Angeles Los Angeles, CA	Conceptualization, Formal analysis, Investigation, Methodology, Validation, Visualization, Writing – original draft, Writing – review & editing
Jamie Ko, MPH	Research Associate on Surgical Team, VA Greater Los Angeles ESP Center Resident in Department of Surgery, David Geffen School of Medicine at UCLA Los Angeles, CA	Conceptualization, Formal analysis, Investigation, Methodology, Validation, Visualization, Writing – original draft, Writing – review & editing

Author	Role and Affiliation	Report Contribution
Jesus Ulloa, MD, MBA, MSHPM	Staff Physician, Vascular Surgery, VA Greater Los Angeles Assistant Clinical Professor, Health Sciences, David Geffen School of Medicine, UCLA Los Angeles, CA	Conceptualization, Formal analysis, Investigation, Methodology, Validation, Visualization, Writing – original draft, Writing – review & editing
Garrett Salzman, MD, MS	Resident in Department of Surgery, David Geffen School of Medicine at UCLA Los Angeles, CA	Conceptualization, Formal analysis, Investigation, Methodology, Validation, Visualization, Writing – original draft, Writing – review & editing
Meron Begashaw, MPH	Project Coordinator, VA Greater Los Angeles ESP Center Los Angeles, CA	Data curation, Project administration, Software, Validation, Visualization, Writing – original draft, Writing – review & editing
Mark D. Girgis, MD	Staff Surgeon, VA Greater Los Angeles Assistant Professor of Surgery, UCLA Los Angeles, CA	Conceptualization, Investigation, Methodology, Supervision, Validation
Jody Larkin, MS	Supervisor Research Librarian, RAND Corporation Santa Monica, CA	Data curation

This report was prepared by the Evidence Synthesis Program Center located at the **VA Greater Los Angeles Healthcare System**, directed by Isomi Miake-Lye, PhD and Paul Shekelle, MD, PhD and funded by the Department of Veterans Affairs, Veterans Health Administration, Health Services Research and Development.

The findings and conclusions in this document are those of the author(s) who are responsible for its contents and do not necessarily represent the views of the Department of Veterans Affairs or the United States government. Therefore, no statement in this article should be construed as an official position of the Department of Veterans Affairs. No investigators have any affiliations or financial involvement (eg, employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties) that conflict with material presented in the report.

PREFACE

The VA Evidence Synthesis Program (ESP) was established in 2007 to provide timely and accurate syntheses of targeted health care topics of importance to clinicians, managers, and policymakers as they work to improve the health and health care of Veterans. These reports help:

- Develop clinical policies informed by evidence;
- Implement effective services to improve patient outcomes and to support VA clinical practice guidelines and performance measures; and
- Set the direction for future research to address gaps in clinical knowledge.

The program comprises four ESP Centers across the US and a Coordinating Center located in Portland, Oregon. Center Directors are VA clinicians and recognized leaders in the field of evidence synthesis with close ties to the AHRQ Evidence-based Practice Center Program. The Coordinating Center was created to manage program operations, ensure methodological consistency and quality of products, interface with stakeholders, and address urgent evidence needs. To ensure responsiveness to the needs of decision-makers, the program is governed by a Steering Committee composed of health system leadership and researchers. The program solicits nominations for review topics several times a year via the [program website](#).

The present report was developed in response to a request from the Office of the Assistant Under Secretary for Health for Quality and Patient Safety. The scope was further developed with input from Operational Partners (below), the ESP Coordinating Center, the review team, and the technical expert panel (TEP). The ESP consulted several technical and content experts in designing the research questions and review methodology. In seeking broad expertise and perspectives, divergent and conflicting opinions are common and perceived as healthy scientific discourse that results in a thoughtful, relevant systematic review. Ultimately, however, research questions, design, methodologic approaches, and/or conclusions of the review may not necessarily represent the views of individual technical and content experts.

ACKNOWLEDGMENTS

The authors are grateful to the following individuals for their contributions to this project:

Operational Partners

Operational partners are system-level stakeholders who help ensure relevance of the review topic to the VA, contribute to the development of and approve final project scope and timeframe for completion, provide feedback on the draft report, and provide consultation on strategies for dissemination of the report to the field and relevant groups.

David Atkins, MD, MPH

Director of VA Health Services Research and Development
Veterans Health Administration

Gerard Cox, MD, MHA

Assistant Under Secretary for Health for Quality and Patient Safety
Veterans Health Administration

Kristin Cunningham, PMP

Executive Officer to the Deputy Under Secretary for Health for Community Care
Veterans Health Administration

Julianne Flynn, MD

Acting Deputy to the Assistant Under Secretary for Health for Office of Community Care
Performing the Delegable Duties to the Assistant Under Secretary for Health Office of
Community Care
Veterans Health Administration
Chief of Staff, VA South Texas Health Care

Joseph Francis, MD, MPH

Executive Director for the Office of Analytics and Performance Integration in the Office of
Quality and Patient Safety
Veterans Health Administration

Peer Reviewers

The Coordinating Center sought input from external peer reviewers to review the draft report and provide feedback on the objectives, scope, methods used, perception of bias, and omitted evidence (see Appendix J for disposition of comments). Peer reviewers must disclose any relevant financial or non-financial conflicts of interest. Because of their unique clinical or content expertise, individuals with potential conflicts may be retained. The Coordinating Center works to balance, manage, or mitigate any potential nonfinancial conflicts of interest identified.

ABBREVIATIONS TABLE

AHRQ	Agency for Healthcare Research and Quality
AMI	Acute myocardial infarction
BEST	Beta-blocker Evaluation of Survival Trial
CABG	Coronary artery bypass graft
CAUTI	Catheter-associated urinary tract infection
CC	Community care
CDW	Corporate data warehouse
CKD	Chronic kidney disease
CLC	Community living center
CMS	Centers for Medicare & Medicaid Services
COPD	Chronic obstructive pulmonary disease
CVD	Cardiovascular disease
ED	Emergency department
ER	Emergency room
ESRD	End-stage renal disease
FY	Fiscal year
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems
HF	Heart failure
MISSION	Maintaining Internal Systems and Strengthening Integrated Outside Networks
NCDB	National Cancer Database
NH	Nursing home
NSCLC	Non-small cell lung cancer
NSQIP	National Surgical Quality Improvement Program
PCI	Percutaneous coronary intervention
PCP	Primary care provider
PE	Pulmonary embolism
SEER	
SHEP	Survey of Healthcare Experience of Patients
THA	Total hip arthroplasty
TKA	Total knee arthroplasty
VA	United States Department of Veterans Affairs
VCP	Veterans Choice Program
VISN	Veterans Integrated Service Network
VTE	Venous thromboembolism

EXECUTIVE SUMMARY

Key Findings

- This review identified 53 relevant studies published between 2015 and 2023 that assessed the quality of VA care with the quality of non-VA care; 19 studies of surgical care and 38 studies of non-surgical care. Four studies contributed data to both.
- In the domain of quality and safety, the great majority of studies found that VA care is as good as, or better than, care in the community.
- For the domains of access, patient experience, and efficiency/cost, comparative studies were fewer in number and more mixed in results, but tended to favor VA care.

INTRODUCTION

The Department of Veterans Affairs (VA) Veterans Health Administration (VHA) is the nation's largest integrated healthcare system. Comparing the quality of VA-delivered healthcare to care delivered in non-VA settings is one way of ensuring VA maintains its commitment to providing high-quality care to Veterans. To support this aim, the VA's Evidence Synthesis Program (ESP) systematically reviews studies comparing the quality of VA and non-VA healthcare. This systematic review is frequently updated with the most recently available evidence; the current report was previously updated in February 2023.

METHODS

Data Sources and Searches

We conducted broad searches using terms relating to *Veterans health* and *community health services* or *private sector*. To identify articles relevant to the key questions, a research librarian searched PubMed, APA PsycINFO, and Web of Science (1/1/2015–3/15/2023).

Study Selection

Studies were included at either the abstract or the full-text level if they were original research studies of any design and made comparisons about the quality of care provided in VA Medical Centers and outpatient clinics compared with care provided in other health systems, *ie*, the general population. We included as quality any outcomes within the Institute of Medicine 6 domains of health care: quality, safety, access, patient experience, efficiency (cost), and equity.

Data Abstraction and Assessment

Data were collected by 2 reviewers working independently with consensus resolution of disagreements.

Synthesis

The synthesis is narrative.

RESULTS

Results of Literature Search

From 2,415 titles, we identified 38 studies of non-surgical care meeting inclusion criteria. From 2,408 titles, we identified 19 studies of surgical care meeting inclusion criteria. Four studies contributed data to both.

Summary of Results for Key Questions

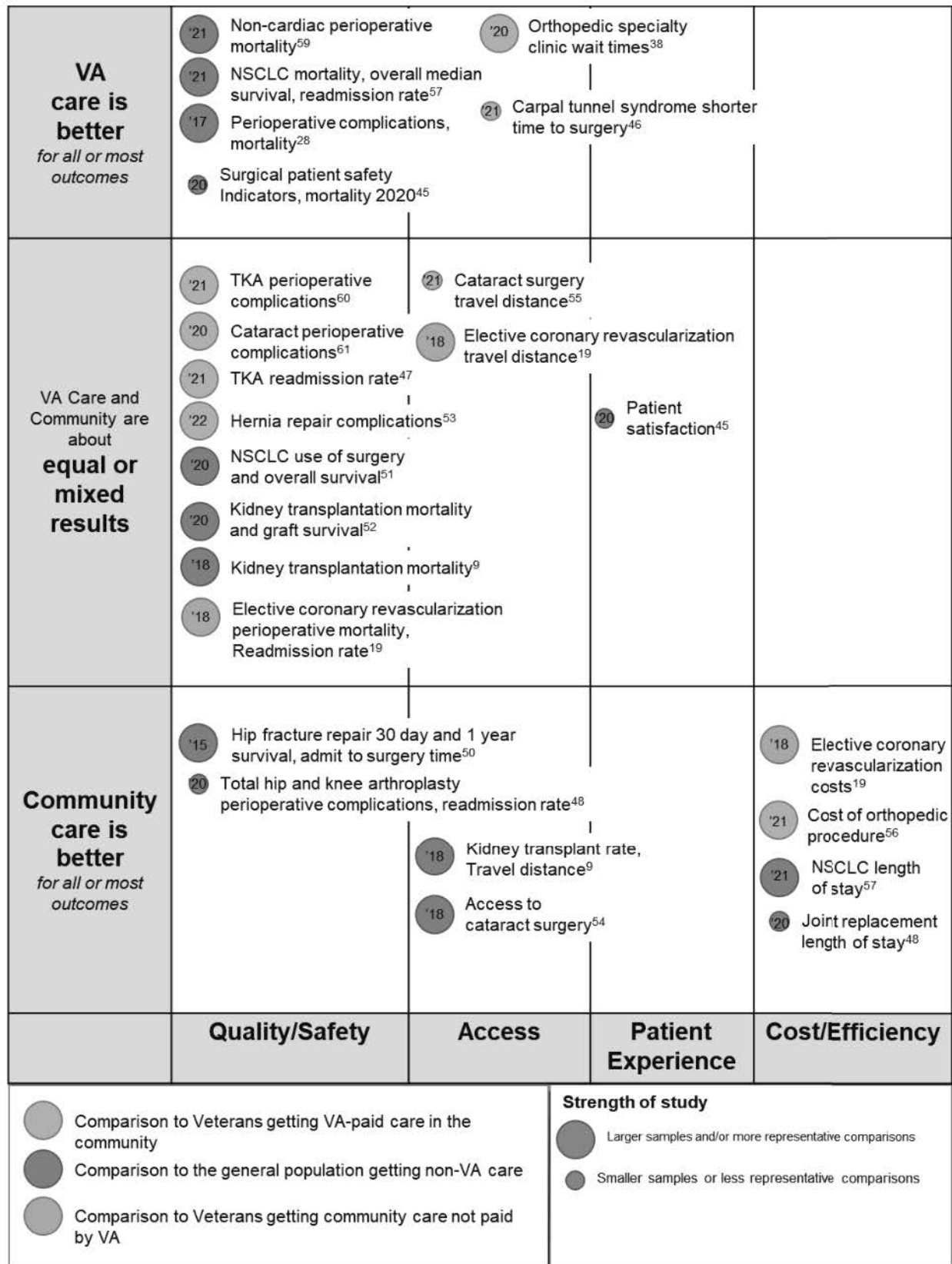
The results of our assessment are presented in the bubble plots below, 1 for nonsurgical care and 1 for surgical care. Both plots are organized the same way: the domains of care are listed on the horizontal axis (quality/safety, access, patient experience, cost/efficiency), the results of the study are listed on the vertical axis (VA care is better than community care, VA care and community care are about equal, or results are mixed, and community care is better than VA care), and then each study is entered as a shape, with larger shapes being studies of better quality and representativeness than studies depicted by smaller shapes. The color of the shape indicates the type of comparison: blue for studies comparing Veterans getting care from VA to Veterans getting VA-paid care in the community; orange for studies comparing Veterans getting care from VA and non-Veterans, or a general population, getting care in the community; and yellow for studies comparing Veterans getting care from VA to Veterans getting community care not paid by VA. Next to each shape is a brief thumbnail of what the study was about, and inside the shape is the year of publication ('18 = 2018, '19 = 2019, *etc*).

ES Figure 1. Non-surgical Map

<p>VA care is better for all or most outcomes</p>	<p>'16 Post-stroke rehabilitation in nursing homes²³</p> <p>'18 Quality/safety outcomes in patients with elective coronary revascularization¹⁹</p> <p>'19 Outpatient chronic dialysis patients' two-year mortality²⁴</p> <p>'22 Completing genetic consultation after referral and engaging in cancer risk-reducing care after consultation³⁵</p> <p>'22 Adenoma detection rate and compliance with surveillance guidelines in colorectal cancer care¹³</p> <p>'16 Medication treatment for patients with mental disorders³²</p> <p>'17 Hospital patient safety indicators²⁸</p> <p>'21 COPD mortality & readmission rates³⁰</p>	<p>'15 Several measures of mortality in patients with advanced chronic systolic HF⁷</p> <p>'16 Inappropriate neuroimaging for headache and/or neuropathy¹⁰</p> <p>'21 Diabetes process & outcome measures in patients without CVD⁸</p> <p>'18 Use of dialysis and mortality in patients with ESRD²⁶</p> <p>'20 Potentially avoidable hospitalizations after receipt of chemotherapy³⁴</p> <p>'21 Rehospitalizations, successful nursing home discharges, & post-discharge ED visits among nursing home residents²²</p> <p>'21 Post-kidney transplant care²⁷</p> <p>'22 Mortality following ER visits⁵⁸</p>
<p>VA care and community care are about equal or mixed results</p>	<p>'18 Risk of hospitalization after dialysis²⁵</p> <p>'22 Change in depression and PTSD outcomes¹²</p> <p>'16 Acute myocardial infarction, heart failure & pneumonia mortality & readmission rates²⁰</p> <p>'18 Various inpatient and outpatient experience measures²⁹</p>	<p>'17 Activities related to catheter-associated UTIs in nursing homes¹⁵</p> <p>'22 Aggressive care at end of life¹⁸</p> <p>'18 Adequacy of antihypertensive medication treatment²¹</p>
<p>Community care is better for all or most outcomes</p>	<p>'18 Pulmonary rehabilitation use in COPD patients³¹</p> <p>'16 ED visits, hospitalizations, and readmissions for HF patients¹⁶</p>	<p>'17 Quality of inpatient psychiatric care¹⁷</p> <p>'18 Mortality & receipt of kidney transplant⁹</p>
Clinical Quality/Safety		
<p>Comparison being made: Veterans getting VA care vs...</p> <p>Comparison to Veterans getting VA-paid care in the community</p> <p>Comparison to the general population getting non-VA care</p> <p>Comparison to Veterans getting community care not paid by VA</p>		<p>Strength of study</p> <p>Larger samples and/or more representative comparisons</p> <p>Smaller samples or less representative comparisons</p>

<p>VA care is better for all or most outcomes</p>	<div> <div> '20 Cardiology, gastroenterology, orthopedics, & urology wait times³⁸ </div> <div> '20 Outpatient primary, specialty, & mental health care patient-reported access to care⁴⁰ </div> </div> <div> <div> '21 Physical therapy, orthopedic care, optometry, & dental care decreases in wait times³⁷ </div> <div> '21 Outpatient primary & specialty care patient-reported provider ratings⁴¹ </div> </div> <div> <div> '22 Wait times in primary, mental health, & all other specialty care³⁹ </div> <div> '17 Prostate cancer patients receipt of guideline concordant care & imaging staging tests⁴² </div> </div> <div> <div> '19 Primary care, dermatology, cardiology, & orthopedics wait times³⁶ </div> <div> '22 Downstream utilization and cost-related to low-value PSA testing⁴⁴ </div> </div>
<p>VA care and community care are about equal or mixed results</p>	<div> <div> '20 Outpatient primary, specialty, & mental health care patient-reported provider ratings⁴⁰ </div> <div> '17 Yelp ratings for hospitals¹⁴ </div> </div> <div> <div> '21 Outpatient primary & specialty care patient-reported provider ratings⁴¹ </div> <div> '18 Cost/efficiency outcomes in patients with elective coronary revascularization¹⁹ </div> </div> <div> <div> '22 Barriers to mental health care¹² </div> <div> '18 Days of hospitalization after dialysis²⁵ </div> </div> <div> <div> '22 Patient centeredness in mental health care¹² </div> <div> '18 Days of hospitalization after dialysis²⁵ </div> </div> <div> <div> '17 Numerous patient experience indicators²⁸ </div> <div> '22 Number of encounters for mental health care¹² </div> </div> <div> <div> '18 Numerous patient experience indicators²⁹ </div> <div> '21 Total inpatient, outpatient, & drug costs for end-of-life cancer care⁴³ </div> </div>
<p>Community care is better for all or most outcomes</p>	<div> <div> '18 Access outcomes in patients with elective coronary revascularization¹⁹ </div> <div> Self-reported delay in care in last 12 months¹¹ </div> </div> <div> <div> '22 Time to colonoscopy¹³ </div> <div> Median distance to transplant center in miles⁹ </div> </div>
<p>Access, Patient Experience, Cost/Efficiency</p>	
<p>Comparison being made: Veterans getting VA care vs...</p> <ul style="list-style-type: none"> Comparison to Veterans getting VA-paid care in the community Comparison to the general population getting non-VA care Comparison to Veterans getting community care not paid by VA 	<p>Strength of study</p> <ul style="list-style-type: none"> Larger samples and/or more representative comparisons Smaller samples or less representative comparisons <p> Access Patient Experience Cost/Efficiency </p>

ES Figure 2. Surgical Map



DISCUSSION

Key Findings

Our systematic review identified 38 studies on non-surgical care and 19 studies of surgical care comparing quality, safety, access, patient experience, or efficiency/cost between VA-delivered care and non-VA-delivered care. The large majority of studies assessed quality and safety, followed by comparisons of access to care. Few studies—only 7 and 10, respectively—assessed patient experience or cost/efficiency. We found no studies comparing VA to non-VA care on equity.

In the domain of quality and safety, the great majority of studies found that VA care is as good as, or better than, care in the community. This was the case for both surgical care and non-surgical care, and for community care of Veterans and community care of non-Veterans. For the domains of access and of cost/efficiency, the studies were more evenly distributed between the categories of VA care is better, VA and community care are about the same, and community care is better. The few studies of patient experience found that VA care and community care were about the same, or VA care was better. We did not identify any study that found that patient experience was better in community care. With only 1 exception in both the surgical and the non-surgical studies, VA-delivered care was as good as or better than Veterans received from VA-paid community care.

Future Research

We did not identify any studies comparing care for some conditions for which the MISSION act has resulted in increased community care, such as Physical Medicine and Rehabilitation.

Conclusions

In general, most published studies of comparisons of quality of care show that Veterans getting care from VA get the same or better quality care than Veterans getting community care or the general public getting non-VA care.

Veterans and the Affordable Care Act

Kenneth W. Kizer, MD, MPH

ARMED CONFLICT HAS BEEN A FREQUENT OCCURRENCE throughout US history. During the last century, the United States has fought 8 wars that together span more than 35 years, not counting numerous conflicts that are not officially considered wars. In view of the many health consequences of war, the potential effect of the Affordable Care Act (ACA) on health care for veterans warrants careful consideration.

In 2011, there were 22.2 million veterans of service in the US Armed Forces. Veterans are a highly diverse population but can be grouped into 3 categories from a health insurance perspective. Approximately 37% are enrolled in the Department of Veterans Affairs (VA) health care system in accordance with a congressionally mandated eligibility system based on having a service-connected disability, low income and net worth, or other prescribed circumstances. More than 80% of VA enrollees older than 65 years are also covered by Medicare and about 25% of enrollees are beneficiaries of 2 or more non-VA federal health plans (eg, Medicare, Medicaid, TRICARE, or Indian Health Service). Another 56% of veterans have private health insurance or are covered by a non-VA federal health plan, while 7% have no health insurance. These latter veterans are poor or near poor but have incomes or net worth that exceed the mean test thresholds for VA health care eligibility.¹

The ACA will not affect health care for the majority of veterans differently than it will affect nonveterans, and the ACA will not change eligibility for VA health care, covered benefits, co-payment for services, or how the VA health care system is administered or operated. Nonetheless, the ACA may affect health care for many veterans through its effects on access, fragmentation and quality of care, utilization of services, the health care work force, and federal expenditures.

The ACA will expand health insurance coverage for low-income persons through Medicaid and state health insurance exchanges, which should make health insurance available to uninsured veterans. The new insurance coverage options will also be available to many VA health care enrollees, expanding their health care choices and potentially increasing convenience and timeliness of care but also fragmenting care. Fragmentation of care is of concern

because it diminishes continuity and coordination of care, resulting in more emergency department use, hospitalizations, diagnostic interventions, and adverse events. The VA serves an especially large number of persons with chronic medical conditions or behavioral health diagnoses—populations especially vulnerable to untoward consequences resulting from fragmented care.

Veterans with dual or multiple health plan eligibility are known to have more fragmented care, although associated untoward effects have not been well studied. Some data suggest that veterans receiving care from both VA and non-VA sources are more likely to be rehospitalized and to die within a year compared with VA-only users, although the reasons for the disproportionate mortality have not been studied.² VA/Medicare dual-eligible veterans with myocardial infarctions who use both plans undergo more invasive cardiac procedures without gaining a survival advantage over VA-only users, but adverse events associated with greater use of invasive procedures by non-VA clinicians have again not been analyzed.³

More health care choices may adversely affect the quality of care for some veterans in ways other than fragmenting care. Physicians in private practice may not be prepared to treat conditions prevalent among veterans. For example, the Reaching Rural Veterans Initiative in Pennsylvania found that private practice primary care clinicians lacked knowledge of posttraumatic stress and other mental health disorders prevalent among veterans and were unfamiliar with VA treatment resources for such conditions.⁴ Additionally, numerous studies have shown that VA enrollees are significantly more likely than persons receiving care from non-VA clinicians to receive evidence-based treatment and recommended services for prevention and early diagnosis of cancer, cardiovascular disease, diabetes, and infectious diseases.⁵⁻⁷

VA enrollees with non-VA health insurance are known to use less VA care than those having only VA coverage, so expanding health care insurance for veterans may decrease use of VA facilities. Volume-sensitive services (eg, intensive care or complex surgery) at some smaller VA hospitals

Author Affiliations: University of California Davis School of Medicine, Betty Irene Moore School of Nursing, Institute for Population Health Improvement, University of California Davis Health System, Sacramento.

Corresponding Author: Kenneth W. Kizer, MD, MPH, Institute for Population Health Improvement, University of California Davis Health System, 4800 Second St, Ste 2600, Sacramento, CA 95817 (kenneth.kizer@ucdmc.ucdavis.edu).

VIEWPOINT

currently have marginally sufficient volumes from a quality-of-care perspective, and maintaining such services in the face of decreased utilization may be ill advised. However, such facilities are typically located in rural and medically underserved areas, where 40% of VA enrollees reside, and closure of underused services may adversely affect local access to both the affected services and others that rely on them, as well as some health care worker training programs.

Furthermore, like similarly located non-VA hospitals, some VA facilities in rural and medically underserved areas struggle with health care worker shortages, especially specialist physicians. The increased demand for care stemming from more than 30 million newly insured persons in 2014 may exacerbate workforce shortages at such facilities. If more veterans have insurance options, then they may seek care outside the VA system and ameliorate some staffing needs; however, past experience has shown that the relationship between health care workforce issues and demand for services in the VA system is difficult to predict.

About a third of dual- or multiply eligible VA enrollees concurrently use non-VA care that is paid for by non-VA federally funded health plans. Increasing health insurance options for VA health care enrollees (eg, Medicaid coverage) will increase redundant spending for veterans' health care, the cost of which will be partially borne by the government. For example, in 2009, VA spent \$3.2 billion to care for 774 970 veterans who were also enrolled in Medicare Advantage plans (Amal Trivedi, MD, MPH, written communication, September 29, 2011). VA expenditures were overwhelmingly for routine inpatient and outpatient care covered by the Medicare Advantage plan, but federal law precludes VA from being reimbursed for services provided to Medicare Advantage beneficiaries, meaning that the federal government paid twice for care of the same person in many instances.

The overall net effect of the ACA on health care for veterans is uncertain at this time, although the act will likely have a number of intended positive and unintended negative effects. Several steps should be taken to better define and quantify these before the coverage expansions take effect in 2014.

First, the effects of multiple health plan eligibility on access to and quality of care for VA health care enrollees should be comprehensively evaluated to prioritize solutions for coordinating VA and non-VA health care coverage for veterans. For pragmatic reasons, this evaluation might focus on California, Texas, and Florida because 24% of US veterans live in these 3 states and they represent a broad spectrum of health care environments.

Second, a systematic assessment of current and projected VA health care workforce needs and service utilization vulnerabilities should be completed and options for addressing them reviewed, including expansion of VA's already well-developed tele-health and home care capabilities. This assessment should also consider effects on VA's postgraduate medical education and other health care worker training programs.

Third, a shared vision of the VA health care system in post-ACA US health care should be developed that considers the effects of increased health insurance coverage for veterans on VA's role as a safety net provider,⁸ declining numbers of World War II and Vietnam War veterans, the increasing number of female veterans, and measures that may be taken to address federal budget problems.

Developing a shared vision for veterans' health care will likely engender a spirited and protracted debate because of the complexity of the issues and divergent views about the VA health care system. This debate should be mindful of the important roles of the VA in health care professional training and research, the large public investment that has been made in the system, and the special status of veterans in US culture. Perhaps above all else, it should be based on the recognition that providing health care for veterans is an ongoing cost of foreign policy and national defense strategies and that the nation has a long-standing social contract with veterans to ensure that those who have experienced harm during military service have ready access to health care.

Conflict of Interest Disclosures: The author has completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Kizer reports that he has served as an independent consultant for the Alaska VA health care system and Booz Allen Hamilton and has been a paid speaker at meetings of various VA networks or services.

REFERENCES

1. Himmelstein DU, Lasser KE, McCormick D, Bor DH, Boyd JW, Woolhandler S. Lack of health coverage among US veterans from 1987 to 2004. *Am J Public Health*. 2007;97(12):2199-2203.
2. Jia H, Zheng Y, Reker DM, et al. Multiple system utilization and mortality for veterans with stroke. *Stroke*. 2007;38(2):355-360.
3. Wright SM, Daley J, Fisher ES, Thibault GE. Where do elderly veterans obtain care for acute myocardial infarction: Department of Veterans Affairs or Medicare? *Health Serv Res*. 1997;31(6):739-754.
4. Boscarino JA, Larson S, Ladd I, Hill E, Paolucci SJ. Mental health experiences and needs among primary care providers treating OEF/OIF veterans: preliminary findings from the Geisinger Veterans Initiative. *Int J Emerg Ment Health*. 2010;12(3):161-170.
5. Trivedi AN, Matula S, Miake-Lye I, Glassman PA, Shekelle P, Asch S. Systematic review: comparison of the quality of medical care in Veterans Affairs and non-Veterans Affairs settings. *Med Care*. 2011;49(1):76-88.
6. Trivedi AN, Grebla RC. Quality and equity of care in the veterans affairs health-care system and in medicare advantage health plans. *Med Care*. 2011;49(6):560-568.
7. Kizer KW, Dudley RA. Extreme makeover: transformation of the veterans health care system. *Annu Rev Public Health*. 2009;30:313-339.
8. Wilson NJ, Kizer KW. The VA health care system: an unrecognized national safety net. *Health Aff (Millwood)*. 1997;16(4):200-204.



The NEW ENGLAND JOURNAL of MEDICINE

Perspective

Restoring Trust in VA Health Care

Kenneth W. Kizer, M.D., M.P.H., and Ashish K. Jha, M.D., M.P.H.

It has been nearly 20 years since the Veterans Health Administration (VHA), the subcabinet agency that oversees the Department of Veterans Affairs (VA) health care system, implemented a series

of sweeping reforms that markedly improved quality, boosted access, and increased efficiency.^{1,2} Recent revelations about long wait times for veterans compounded by systematic cover-up by VHA administrators make it clear that reforms are again needed. Apparent manipulation and falsification of wait-time data at more than 40 facilities indicate a serious systemic problem.

To some observers, the VA's problems confirm that government cannot manage health care. To others, they tell a simple story of insufficient funding: the VA needs more money to care for the large number of veterans returning from the wars in Iraq and

Afghanistan and for aging Vietnam veterans. Unfortunately, neither narrative adequately captures the challenges facing this organization or provides guidance on how we might address them.

Inadequate numbers of primary care providers, aged facilities, overly complicated scheduling processes, and other difficult challenges have thwarted the VA's efforts to meet soaring demand for services. For years, it has been no secret that the VA's front lines of care delivery are understaffed for the needs. And though there can be no excuse for falsifying data, we believe that VA leadership created a toxic milieu when they imposed an unrealistic per-

formance standard and placed high priority on meeting it in the face of these difficult challenges. They further compounded the situation by using a severely flawed wait-time-monitoring system and expressing a "no excuses" management attitude.

Without diminishing the seriousness of the problems of data manipulation and prolonged wait times, we would argue that these are symptoms of deeper pathology. Quite simply, the VA has lost sight of its primary mission of providing timely access to consistently high-quality care. Although it has garnered less attention than the wait-time problems, a disturbing pattern of increasingly uneven quality of care has also evolved in recent years. To be sure, the quality of health care provided by VA hospitals is, on average, similar to or better than that in the private sector.¹⁻³ When

VA hospitals are compared with top-tier integrated delivery systems, however, their quality advantage diminishes. Some VA hospitals excel, but others are struggling with the basics. The Phoenix VA Medical Center — ground zero of the wait-time scandal — has mortality rates for common conditions that are among the highest within the VA and higher than those in many private hospitals. Its rates of catheter-related bloodstream infections are nearly three times the national average.

After the VA gained a hard-won reputation for providing superior-quality care 15 years ago, how did cracks appear in its delivery of safe, effective, patient-centered care? We believe there are three main causes: an unfocused performance-measurement program, increasingly centralized control of care delivery and associated increased bureaucracy, and increasing organizational insularity.

The performance-measurement program — a management tool for improving quality and increasing accountability that was introduced in the reforms of the late 1990s — has become bloated and unfocused.⁴ Originally, approximately two dozen quality measures were used, all of which had substantial clinical credibility. Now there are hundreds of measures with varying degrees of clinical salience. The use of hundreds of measures for judging performance not only encourages gaming but also precludes focusing on, or even knowing, what's truly important.

In addition, the tenor of management has changed substantially over the past decade. During the reforms of the 1990s, decentralization of operational deci-

sion making was a core principle. Day-to-day responsibility for running the health care system was largely delegated to the local facility and regional-network managers within the context of clear performance goals, while central-office staff focused on setting strategic direction and holding the “field” accountable for improving performance. In recent years, there has been a shift to a more top-down style of management, whereby the central office has oversight of nearly every aspect of care delivery.⁴ Concomitantly, the VHA's central-office staff has grown markedly — from about 800 in the late 1990s to nearly 11,000 in 2012.

Finally, the VA health care system has become increasingly insular and inward-looking. It now has little engagement with private-sector health care, and too often it has declined to make its performance data public. For example, it contributes only a small proportion of its data to the national public reporting program for hospitals, Hospital Compare, and has declined to participate in other public performance reporting forums such as the Leapfrog Group's efforts to assess patient safety.

So how can the VA turn the ship around? We propose a few first steps.

First, after ensuring that all veterans on wait lists are screened and triaged for care, the VA should refocus its performance-management system on fewer measures that directly address what is most important to veteran patients and clinicians — especially outcome measures. The agency's recently developed Strategic Analytics for Improvement and Learning (SAIL) dashboard, which focuses on 28 meaningful metrics including ac-

cess to care, mortality rates, infection rates, and patient satisfaction, is a good start that will improve with use and would help hold the VA accountable for results.

Second, conceptualizing access to care in terms of a “continuous healing relationship,”⁵ the agency should design a new access strategy that draws on modern information and advanced communications technologies to facilitate caregiver–patient connectivity and that uses personalized care plans to address patients' individual access needs and preferences. Facility-by-facility assessments should determine whether VA facilities are using technology to leverage the best possible “care delivery return on investment” and whether personnel are working at the top of their skills. Perhaps some of the resources supporting the central and network office bureaucracies could be redirected to bolster the number of caregivers.

Third, we believe the VA needs to engage more with private-sector health care organizations and the general public — participating fully in performance-reporting initiatives, expanding learning-and-improvement partnerships with outside entities (as it did in the late 1990s in spearheading national patient-safety improvement efforts¹), and making performance data broadly available. Transparency may expose vulnerabilities, but it is easier to improve when weaknesses are publicly acknowledged.

VA health care is at a crossroads. We learned from the last round of reforms that the VA's problems can be fixed. The agency continues to employ an army of highly dedicated clinicians and administrators who are deeply committed to providing high-quality

ity care to veterans. New leadership should help them succeed.

The views expressed in this article are those of the authors and do not necessarily reflect those of the Department of Veterans Affairs.

Dr. Kizer reports serving as Under Secretary for Health in the Department of Veterans Affairs from 1994 through 1999. Dr. Jha is a staff physician at the Boston VA Healthcare System.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From the Institute for Population Health Improvement, UC Davis Health System; the

Department of Emergency Medicine, University of California Davis School of Medicine; and the Betty Irene Moore School of Nursing — all in Sacramento, CA (K.W.K.); and the Department of Health Policy and Management, Harvard School of Public Health; and the Division of General Medicine, Brigham and Women's Hospital — both in Boston (A.K.J.).

This article was published on June 4, 2014, at NEJM.org.

1. Kizer KW, Dudley RA. Extreme makeover: transformation of the veterans health care system. *Annu Rev Public Health* 2009;30:313-39.
2. Jha AK, Perlin JB, Kizer KW, Dudley RA.

Effect of the transformation of the Veterans Affairs health care system on the quality of care. *N Engl J Med* 2003;348:2218-27.

3. Trivedi AN, Matula S, Miake-Lye I, Glassman PA, Shekelle P, Asch S. Systematic review: comparison of the quality of medical care in Veterans Affairs and non-Veterans Affairs settings. *Med Care* 2011;49:76-88.

4. Kizer KW, Kirsh SR. The double edged sword of performance measurement. *J Gen Intern Med* 2012;27:395-7.

5. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century. Washington DC: National Academy Press, 2001.

DOI: 10.1056/NEJMp1406852

Copyright © 2014 Massachusetts Medical Society.

[Talk to the Veterans Crisis Line now](#)[VA.gov](#)[Locations](#)[Business](#)[VA Careers](#)[Contact Us](#)**VA** | News[News](#) ▾[Resources](#) ▾[VA Podcast Network](#)[VA Press Room](#)[Home](#) / [Press Room](#)

Studies show VA health care is better than or equal to non-VA health care

FOR IMMEDIATE RELEASE

May 8, 2023 12:15 pm

WASHINGTON — The [Journal of General Internal Medicine](#) and the [Journal of the American College of Surgeons](#) published articles based on a [systematic review of studies](#) about VA health care, concluding VA health care is consistently as good as — or better than — non-VA health care.

The findings come from a national review of peer-reviewed studies that evaluated VA on quality, safety, access, patient experience, and comparative cost/efficiency. Of the 26 studies that looked at non-surgical care, 15 reported VA care was better than non-VA care and seven reported equal or mixed clinical quality outcomes. Of the 13 studies that looked at quality and safety in surgical care, 11 reported VA surgical care is comparable or better than non-VA care.

VA is currently delivering more care to more Veterans than ever before in the nation's history. Among the Veterans who receive their care from VA, approximately 90% trust VA to deliver their care.

"These studies demonstrate that VA care is consistently as good or better than non-VA care, both in surgical and non-surgical settings," said VA Secretary Denis McDonough. "VA's public servants are here for Veterans anytime, anyplace — even in the midst of a pandemic. Our goal at VA is to deliver world-class care to every Veteran, every time, and we will never settle for anything less."

This year's systematic review included studies published between 2015 and 2021. This is the third systematic review of studies comparing VA care to non-VA care, the most recent of which was published in 2017. Each of these systematic reviews has come to the same overarching conclusion: on average, VA care is better than or comparable to non-VA care in the domains of clinical quality and safety.

This review was conducted by researchers at the VA Greater Los Angeles Healthcare System in California and the University of California, Los Angeles. Read the

full articles at Journal of [General Internal Medicine](#)
and the Journal of the American College of Surgeons.

###



Reporters and media outlets with questions or comments should contact the Office of Media Relations at vapublicaffairs@va.gov



Veterans with questions about their health care and benefits (including GI Bill). Questions, updates and documents can be submitted online.

[Contact us online through Ask VA](#)



Veterans can also use our chatbot to get information about VA benefits and services. The chatbot won't connect you with a person, but it can show you where to go on VA.gov to find answers to some common questions.

[Learn about our chatbot and ask a question](#)



Subscribe today to receive these news releases in your inbox.

Topics

Link Disclaimer

This page includes links to other websites outside our control and jurisdiction. VA is not responsible for the privacy practices or the content of non-VA Web sites. We encourage you to review the privacy policy or terms and conditions of those sites to fully understand what information is collected and how it is used.

Statement of Endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government, and shall not be used for advertising or product endorsement purposes.

LET OTHERS KNOW ABOUT THIS





More from the Press Room

NEWS RELEASES
DECEMBER 1, 2023

VA adds three new Vet Centers and six satellite locations to increase access to counseling for Veterans and service members

The Department of Veterans Affairs adds three new Vet Centers and six Vet Center Outstations (smaller satellite locations) to improve access to counseling for

NEWS RELEASES
NOVEMBER 29, 2023

VA has housed more than 38,000 homeless Veterans in 2023, surpassing goal two months early

The Department of Veterans Affairs announced permanently housed 38,847 homeless Veterans through October of 2023 — surpassing the calendar year goal to house 38,000 Veterans two months early.

NEWS RELEASES
NOVEMBER 21, 2023

VA and the Global Liver Institute collaborate to enhance quality of life for Veterans with liver diseases

The Department of Veterans Affairs announced a new partnership with the Global Liver Institute to improve the lives of Veterans with liver diseases.

Veterans and
service members.

Last updated May 8, 2023



U.S. Department of Veterans Affairs
810 Vermont Ave., NW
Washington, DC 20420
1-800-698-2411

VA News

An official website of the U.S. Department of Veterans Affairs

VA.gov

ChooseVA

VA Forms

VA Publications

About VA

VA mobile apps

Accessibility at VA

No FEAR Act data

Whistleblower

Protection

Office of the Inspector

General

VA plans, budget,

finances, and

performance

Agency Financial Report

Privacy policy

FOIA requests

Disclaimers

Open data

Vulnerability disclosure

policy

Copyright policy

Looking for U.S. government information and services? Visit [USA.gov](https://www.usa.gov)

[Talk to the Veterans Crisis Line now](#)[VA.gov](#) [Locations](#) [Business](#) [VA Careers](#)
[Contact Us](#)**VA** | News[News](#) ▾ [Resources](#) ▾ [VA Podcast Network](#)
[VA Press Room](#) [Home](#) / [Press Room](#)

Majority of VA health care facilities receive 4 or 5 stars in CMS quality ratings, outperforming non-VA facilities

FOR IMMEDIATE RELEASE

July 26, 2023 10:30 am

WASHINGTON – Today, the Department of Veterans Affairs announced that 67% of VA hospitals included in the [Centers for Medicare & Medicaid Services](#) (CMS) annual Overall Hospital Quality Star Ratings

received either 4 or 5 stars, compared to only 41% of non-VA hospitals. This was the first time VA hospitals were included in the CMS Star Ratings.

The CMS uses 5 categories — mortality, safety of care, readmission, patient experience, and timely and effective care — to award a quality rating for each hospital. The more stars (out of 5), the better a hospital performed on the available quality measures.

These findings are the latest in a series of recent evaluations showing the effectiveness of VA health care compared to non-VA health care. VA hospitals outperformed non-VA hospitals on all 10 core patient satisfaction metrics in the [recent Hospital Consumer Assessment of Healthcare Providers and Systems Star Ratings](#), and a recent [systematic review of more than 40 peer-reviewed studies](#) found that VA health care is consistently as good as — or better than — non-VA health care.

“Whenever a Veteran entrusts us with their care, they deserve to know that they’re getting the very best,” said **VA Secretary Denis McDonough**. “That’s what we strive for in every hospital across the nation, and we will never settle for anything less.”

“Our job at VA is to deliver the best possible care to every Veteran who walks through our doors,” said **VA Under Secretary for Health Dr. Shereef Elnahal**.

“While we’re very proud of these findings, there is still work to do. We will study these results, learn from them, and continue to improve until we’re delivering world-class care to every Veteran, every time.”

The Star Ratings are posted on [Care Compare](#), a website “designed for consumers to use along with

their healthcare provider to make decisions on where to receive care.” More information on the methodology of the Star Ratings can be found [here](#).

According to CMS, the Star Rating is intended for acute care hospitals. CMS excludes all measures specific to specialty hospitals (such as cancer hospitals or inpatient psychiatric facilities), or ambulatory surgical centers prior to applying any measure selection criteria. Based on these criteria, 114 VA facilities received a CMS star rating and 23 were not rated.

These star ratings are based on data collected between July 2018 and March 2022. To view the star ratings for your local VA or non-VA hospital, visit [here](#).

###



Reporters and media outlets with questions or comments should contact the Office of Media Relations at vapublicaffairs@va.gov



Veterans with questions about their health care and benefits (including GI Bill). Questions, updates and documents can be submitted online.

[Contact us online through Ask VA](#)



Veterans can also use our chatbot to get information about VA benefits and services. The chatbot won't connect you with a person, but it can show you where to go on VA.gov to find answers to some common questions.

[Learn about our chatbot and ask a question](#)



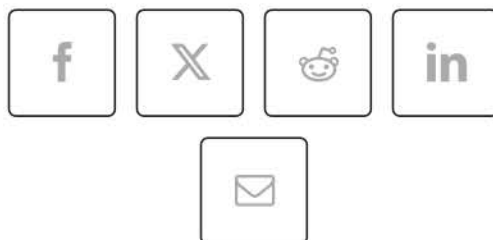
[Subscribe today](#) to receive these news releases in your inbox.

Topics

Health Care

Secretary McDonough

LET OTHERS KNOW ABOUT THIS



More from the Press Room

NEWS RELEASES
DECEMBER 1, 2023

VA adds three new Vet Centers and six satellite locations to increase access to counseling for Veterans and service members

The Department of Veterans Affairs adds three new Vet Centers and six Vet Center Outstations (smaller satellite locations) to improve access to counseling for Veterans and service members.

NEWS RELEASES
NOVEMBER 29, 2023

VA has housed more than 38,000 homeless Veterans in 2023, surpassing goal two months early

The Department of Veterans Affairs announced permanently housed 38,847 homeless Veterans through October of 2023 — surpassing the calendar year goal to house 38,000 Veterans two months early.

NEWS RELEASES
NOVEMBER 21, 2023

VA and the Global Liver Institute collaborate to enhance quality of life for Veterans with liver diseases

The Department of Veterans Affairs announced a new partnership with the Global Liver Institute to improve the lives of Veterans with liver diseases.

Last updated July 27, 2023



U.S. Department
of Veterans Affairs

U.S. Department of Veterans Affairs

810 Vermont Ave., NW

Washington, DC 20420

1-800-698-2411

VA News

An official website of the U.S. Department of Veterans Affairs

[VA.gov](#)

[ChooseVA](#)

[VA Forms](#)

[VA Publications](#)

[About VA](#)

[VA mobile apps](#)

[Accessibility at VA](#)

[No FEAR Act data](#)

[Whistleblower](#)

[Protection](#)

[Office of the Inspector](#)

[General](#)

[VA plans, budget,](#)

[finances, and](#)

[performance](#)

[Agency Financial Report](#)

[Privacy policy](#)

[FOIA requests](#)

[Disclaimers](#)

[Open data](#)

[Vulnerability disclosure
policy](#)

[Copyright policy](#)

Looking for U.S. government information and services? Visit [USA.gov](#)

[Talk to the Veterans Crisis Line now](#)

[VA.gov](#) [Locations](#) [Business](#) [VA Careers](#)
[Contact Us](#)

VA | News

[News](#) ▾ [Resources](#) ▾ [VA Podcast Network](#)
[VA Press Room](#) 

[Home](#) / [Press Room](#)

Nationwide patient survey shows VA hospitals outperform non-VA hospitals

FOR IMMEDIATE RELEASE

June 14, 2023 6:00 am

WASHINGTON — According to Medicare's latest nationwide survey of patients , VA hospitals outperformed non-VA hospitals on all 10 core patient satisfaction metrics — including overall hospital rating, communication with doctors, communication

about medication, willingness to recommend the hospital, and more.

As a part of the [survey](#), Medicare awards [star ratings](#) from one star to five stars, with “more stars representing better quality care.” Based on patient surveys between July 2021 and June 2022, 72% of VA hospitals received four or five stars for **Overall hospital rating** compared to 48% of reporting non-VA hospitals. Additionally, VA hospitals received a higher percentage of four or five star ratings than non-VA hospitals for **Communication with doctors** (87% vs. 48%), **Communication with nurses** (59% vs. 35%), **Responsiveness of hospital staff** (63% vs. 34%), **Communication about medicines** (80% vs. 38%), **Cleanliness of the hospital environment** (69% vs. 52%), **Quietness of the hospital environment** (49% vs. 38%), **Discharge information** (65% vs. 55%), **Care transition** (76% vs. 35%), and **Willingness to recommend the hospital** (76% vs. 52%). The results are drawn from Medicare’s [Care Compare](#) website.

These findings align with a recent [systematic review of more than 40 peer-reviewed studies](#), which found that VA health care is consistently as good as — or better than — non-VA health care.

“At VA, Veterans are the ultimate judges of our successes or failures — so we’re very proud to be this highly rated in a survey of Veterans,” said **VA Secretary Denis McDonough**. “Our goal at VA is to deliver world-class care to every Veteran, every time, and we will continue to invest in VA health care and the patient experience until we make that goal a reality.”

The Centers for Medicare and Medicaid Services update the Hospital Consumer Assessment of Healthcare Providers and Systems Star Ratings each quarter. The survey is administered to a random sample of patients across the country. The survey asks discharged patients 29 questions about their recent hospital stay, including 19 core questions about critical aspects of patients' hospital experiences. The same questions are asked on VA and community hospital surveys to evaluate the patient experience. More information on methodology can be found [here](#).

VA also surveys Veterans in order to understand and improve the Veteran experience with VA. The [VA Trust Report](#) for the second quarter of fiscal year 2023 shows that nearly 90% of Veterans who get their care from VA trust VA for their care (based on 560,000 surveys). Additionally, more than 79% of Veterans trust VA overall, reflecting a 1.9% increase from the last quarter and a 24% increase since 2016.

Visit [access to care](#) to compare VA hospital data to other medical centers in the community. View [VA's trust report and other customer experience data](#) for more details.

###



Reporters and media outlets with questions or comments should contact the Office of Media Relations at vapublicaffairs@va.gov



Veterans with questions about their health care and benefits (including GI Bill). Questions, updates and documents can be submitted online.

[Contact us online through Ask VA](#)



Veterans can also use our chatbot to get information about VA benefits and services. The chatbot won't connect you with a person, but it can show you where to go on VA.gov to find answers to some common questions.

[Learn about our chatbot and ask a question](#)



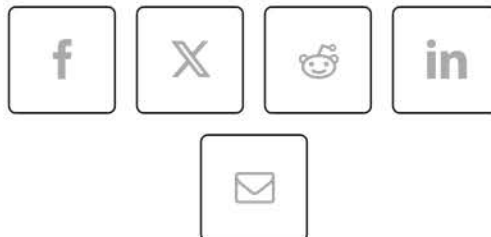
[Subscribe today](#) to receive these news releases in your inbox.

Topics

Medicare star ratings

Secretary McDonough

**LET OTHERS KNOW
ABOUT THIS**



More from the Press Room

NEWS RELEASES
DECEMBER 1, 2023

VA adds three new Vet Centers and six satellite locations to increase access to counseling for Veterans and service members

The Department of Veterans Affairs adds three new Vet Centers and six Vet Center Outstations (smaller satellite locations) to improve access to

NEWS RELEASES
NOVEMBER 29, 2023

VA has housed more than 38,000 homeless Veterans in 2023, surpassing goal two months early

The Department of Veterans Affairs announced permanently housed 38,847 homeless Veterans through October of 2023 — surpassing the calendar year

NEWS RELEASES
NOVEMBER 21, 2023

VA and the Global Liver Institute collaborate to enhance quality of life for Veterans with liver diseases

The Department of Veterans Affairs announced a new partnership with the Global Liver Institute to improve the lives of Veterans with liver diseases.

counseling for
Veterans and
service members.

goal to house
38,000 Veterans
two months early.

Last updated June 14, 2023



U.S. Department of Veterans Affairs
810 Vermont Ave., NW
Washington, DC 20420
1-800-698-2411

VA News

An official website of the U.S. Department of Veterans Affairs

VA.gov

ChooseVA

VA Forms

VA Publications

About VA

VA mobile apps

Accessibility at VA

No FEAR Act data

Whistleblower

Protection

Office of the Inspector

General

VA plans, budget,

finances, and

performance

Agency Financial Report

Privacy policy

FOIA requests

Disclaimers

Open data

Vulnerability disclosure

policy

Copyright policy

Looking for U.S. government information and services? Visit [USA.gov](https://www.usa.gov)

Community Care and Access Strategies Executive Roundtable (Jan 9-10, 2024)

Purpose

A small group of renowned health care experts and thought leaders will examine the present state, and make recommendations on the future, of Veteran access to care and VHA's Community Care program.

Agenda

Time	Topic	Objectives	Facilitator
Day 1 – Tuesday, January 9th, 1:00-5:30pm ET			
1:00 – 1:15	Under Secretary for Health	<ul style="list-style-type: none"> Opening remarks from Dr. Shereef Elnahal 	
1:15 – 1:30pm	Welcome and Introductions	<ul style="list-style-type: none"> Get to know the facilitator and roundtable participants Overview of Executive Roundtable outputs 	Dr. Suh / Dr. Kizer
1:30 – 2:00pm	Agenda and VHA 101	<ul style="list-style-type: none"> Introductory VHA overview Review problem statement, agenda, and objectives Set the stage for collaboration 	Dr. Suh / Dr. Kizer
2:00 – 2:30pm	Secretary of Veterans Affairs	<ul style="list-style-type: none"> Comments and address from The Honorable Denis McDonough. 	
2:30 – 2:45pm	BREAK		
2:45 – 3:45pm	Overview of VHA and Recent Trends in Community Care Spending and Utilization	<ul style="list-style-type: none"> Understand how the VHA system is organized, the populations served, and its unique characteristics (i.e., mission, services, quality of care) Understand where Veterans are receiving their care (VHA vs. community) Understand key drivers of community care spending 	Dr. Kizer
3:45 – 4:00pm	BREAK		
4:00 – 4:45pm	Current VHA Strategies	<ul style="list-style-type: none"> Understand what VHA is currently doing to address community care spending 	Dr. Kizer
4:45 – 5:30pm	Q&A and Discussion	<ul style="list-style-type: none"> Allow roundtable participants to clarify understanding of current state Initial impressions from roundtable participants Review agenda and objectives for day 2 	Dr. Kizer
6:00pm	Dinner @ Joe's (750 15th St NW)		

Time	Topic	Objectives	Facilitator
Day 2 – Wednesday, January 10th, 8:00am-12:30pm ET			
8:00 – 10:00am	Roundtable Discussion 1: Current State Assessment	<ul style="list-style-type: none"> Assess community care spending trends and VHA's strategies 	Dr. Kizer
10:00 – 10:15am	BREAK		
10:15am – 12:15pm	Roundtable Discussion 2: Future State	<ul style="list-style-type: none"> Provide recommendations for VHA to optimize current strategies or implement new strategies to address community care spending while further improving Veterans' access to the soonest and best care 	Dr. Kizer
12:15 – 12:30pm	Final Wrap-Up	<ul style="list-style-type: none"> Provide next steps Address participant questions 	Dr. Suh

Attendees

Participant	Relevant Expertise
Dr. Kenneth Kizer (Chair)	Former Under Secretary for Health, VHA
Dr. Jonathan Perlin	Former Under Secretary for Health, VHA
Dr. Karen Guice	Former Principal Deputy Assistant Secretary of Defense for Health Affairs, Performing the Duties of the Assistant Secretary of Defense for Health Affairs
Dr. Elder Granger, Major General Retired	Former Deputy Director and Program Executive Officer of the TRICARE Management Activity, Office of the Assistant Secretary of Defense (Health Affairs)
Dr. Debra Friesen	Physician Advisor, Customer Clinical Solutions National Sales and Account Management Kaiser Permanente
Dr. Dana Gelb Safran	President and Chief Executive Officer National Quality Forum
Dr. Kavita Patel	Nonresident Fellow, The Brookings Institution

VHA Participants and Roles

Participant	Role in Event
Dr. Ryung Suh (Chief of Staff, VHA)	Business owner and facilitator
AUSHs and Chief Officers upon request	Day 1: listen in; participate in Q&A Day 2: listen in
VISN Network Directors	Day 2: listen in
Mary Fields	Office of Integrated Veteran Care
Dr. Sachin Yende	Office of Integrated Veteran Care
Hilary Peabody	Deputy Assistant Under Secretary for Health for Integrated Veteran Care

Draft Facilitation Questions – Roundtable Discussions (Day 2)

1. **What takeaways** do you have based on community care data and VHA trends?
2. What thoughts do you have on **VHA's current approach** to ensuring Veterans have access to the soonest and best care?
 - a) In what ways do you believe the existing approach will be sustainable? How so?
 - b) Is there anything missing if viewed from the perspective of different stakeholders?
 - c) What challenges / roadblocks do you envision?
3. Which **strategies** do you expect to have the greatest impact? The quickest impact?
4. What **other ideas** do you have to address these trends?
 - a) What opportunities are within VHA leadership's control?
 - b) What other structural changes could help address these trends longer-term?
5. Based on all of this, what you would encourage **VHA leadership to prioritize** over the next 12 months?
6. What advice do you have for VHA to **scale and sustain initiatives**, leveraging existing infrastructure (e.g., innovation ecosystem)?



DEPARTMENT OF VETERANS AFFAIRS

Veterans Health Administration

Washington, DC 20420

December 1, 2023

Elder Granger M.D., MG, USA Retired

(b)(6)

Dear Major General Granger:

I write to invite you to join a small group of renowned health care experts and thought leaders for a Veterans Health Administration (VHA) Executive Roundtable that will examine the present state, and make recommendations on the future, of Veteran access to care and VHA's Community Care program. The convening is set for January 9-10, 2024, at the Department of Veterans Affairs Central Office in Washington, DC.

Dr. Kenneth W. Kizer, former VHA Under Secretary for Health, will moderate the discussion and facilitate an examination of the challenges associated with the rising use, and financial implications, of VHA's Community Care program. Your presence and contributions to the discussion will be invaluable as we look to determine the strategic direction of critical VHA programs.

With your acceptance of this invitation, VHA will assist with travel planning and reimbursement, if needed. Please RSVP by December 7, 2023, to Alan Cleaver (b)(6)@va.gov; (b)(6). Thank you for your commitment to the health and well-being of our Veterans. I look forward to having you with us in January.

Sincerely,

(b)(6)

Shereef Elnahal, M.D., MBA
Under Secretary for Health



DEPARTMENT OF VETERANS AFFAIRS

Veterans Health Administration

Washington, DC 20420

December 1, 2023

Ms. Michelle Showalter

(b)(6)

Dear Ms. Showalter:

I write to invite you to join a small group of renowned health care experts and thought leaders for a Veterans Health Administration (VHA) Executive Roundtable that will examine the present state, and make recommendations on the future, of Veteran access to care and VHA's Community Care program. The convening is set for January 9-10, 2024, at the Department of Veterans Affairs Central Office in Washington, DC.

Dr. Kenneth W. Kizer, former VHA Under Secretary for Health, will moderate the discussion and facilitate an examination of the challenges associated with the rising use, and financial implications, of VHA's Community Care program. Your presence and contributions to the discussion will be invaluable as we look to determine the strategic direction of critical VHA programs.

With your acceptance of this invitation, VHA will assist with travel planning and reimbursement, if needed. Please RSVP by December 7, 2023, to Alan Cleaver (b)(6)@va.gov; (b)(6). Thank you for your commitment to the health and well-being of our Veterans. I look forward to having you with us in January.

Sincerely,

(b)(6)

Shereef Elnahal, M.D., MBA
Under Secretary for Health



DEPARTMENT OF VETERANS AFFAIRS

Veterans Health Administration

Washington, DC 20420

December 1, 2023

Kenneth W. Kizer, M.D., MPH

(b)(6)

Dear Dr. Kizer:

I write to invite you to serve as Chairman of a Veterans Health Administration Executive Roundtable. VHA is gathering a small group of renowned health care experts and thought leaders to examine the present state, and make recommendations on the future, of Veteran access to care and VHA's Community Care program. The convening is set for January 9-10, 2024, at the Department of Veterans Affairs Central Office in Washington, DC.

As Chairman of VHA's Executive Roundtable, you will moderate the discussion and facilitate an examination of the challenges associated with the rising use, and financial implications, of VHA's Community Care program. Your presence and contributions to the discussion will be invaluable as we look to determine the strategic direction of critical VHA programs.

With your acceptance of this invitation, VHA will assist with travel planning and reimbursement, if needed. Please RSVP by December 7, 2023, to Alan Cleaver

(b)(6)

@va.gov; (b)(6)

. Thank you for your commitment to the health and well-being of our Veterans. I look forward to having you with us in January.

Sincerely,

(b)(6)

Shereef Elnahal, M.D., MBA
Under Secretary for Health



DEPARTMENT OF VETERANS AFFAIRS

Veterans Health Administration

Washington, DC 20420

December 1, 2023

Jonathan B. Perlin, M.D., Ph.D., MSHA, MACP, FACMI

(b)(6)

Dear Dr. Perlin:

I write to invite you to join a small group of renowned health care experts and thought leaders for a Veterans Health Administration (VHA) Executive Roundtable that will examine the present state, and make recommendations on the future, of Veteran access to care and VHA's Community Care program. The convening is set for January 9-10, 2024, at the Department of Veterans Affairs Central Office in Washington, DC.

Dr. Kenneth W. Kizer, former VHA Under Secretary for Health, will moderate the discussion and facilitate an examination of the challenges associated with the rising use, and financial implications, of VHA's Community Care program. Your presence and contributions to the discussion will be invaluable as we look to determine the strategic direction of critical VHA programs.

With your acceptance of this invitation, VHA will assist with travel planning and reimbursement, if needed. Please RSVP by December 7, 2023, to Alan Cleaver (b)(6)@va.gov; (b)(6). Thank you for your commitment to the health and well-being of our Veterans. I look forward to having you with us in January.

Sincerely,

(b)(6)

Shereef Elnahal, M.D., MBA
Under Secretary for Health



DEPARTMENT OF VETERANS AFFAIRS

Veterans Health Administration

Washington, DC 20420

December 1, 2023

Dana Gelb Safran, Sc.D.

(b)(6)

Dear Dr. Safran:

I write to invite you to join a small group of renowned health care experts and thought leaders for a Veterans Health Administration (VHA) Executive Roundtable that will examine the present state, and make recommendations on the future, of Veteran access to care and VHA's Community Care program. The convening is set for January 9-10, 2024, at the Department of Veterans Affairs Central Office in Washington, DC.

Dr. Kenneth W. Kizer, former VHA Under Secretary for Health, will moderate the discussion and facilitate an examination of the challenges associated with the rising use, and financial implications, of VHA's Community Care program. Your presence and contributions to the discussion will be invaluable as we look to determine the strategic direction of critical VHA programs.

With your acceptance of this invitation, VHA will assist with travel planning and reimbursement, if needed. Please RSVP by December 7, 2023, to Alan Cleaver (b)(6)@va.gov; (b)(6). Thank you for your commitment to the health and well-being of our Veterans. I look forward to having you with us in January.

Sincerely,

(b)(6)

Shereef Elnahal, M.D., MBA
Under Secretary for Health



DEPARTMENT OF VETERANS AFFAIRS

Veterans Health Administration

Washington, DC 20420

December 1, 2023

Karen S. Guice, M.D., M.P.P.

(b)(6)

Dear Dr. Guice:

I write to invite you to join a small group of renowned health care experts and thought leaders for a Veterans Health Administration (VHA) Executive Roundtable that will examine the present state, and make recommendations on the future, of Veteran access to care and VHA's Community Care program. The convening is set for January 9-10, 2024, at the Department of Veterans Affairs Central Office in Washington, DC.

Dr. Kenneth W. Kizer, former VHA Under Secretary for Health, will moderate the discussion and facilitate an examination of the challenges associated with the rising use, and financial implications, of VHA's Community Care program. Your presence and contributions to the discussion will be invaluable as we look to determine the strategic direction of critical VHA programs.

With your acceptance of this invitation, VHA will assist with travel planning and reimbursement, if needed. Please RSVP by December 7, 2023, to Alan Cleaver (b)(6)@va.gov; (b)(6). Thank you for your commitment to the health and well-being of our Veterans. I look forward to having you with us in January.

Sincerely,

(b)(6)

Shereef Elnahal, M.D., MBA
Under Secretary for Health