MAHSO

MARKET AREA HEALTH SYSTEMS OPTIMIZATION

National Planning Strategy

Specialty Care Services in Multi-Specialty Community-Based Outpatient Clinics and Health Care Centers

September 2021

Table of Contents

Executive Summary

The Department of Veterans Affairs (VA) Market Area Health Systems Optimization (MAHSO) effort developed 96 draft market assessments in the 18 VA Veterans Integrated Service Networks (VISNs) to produce opportunities for the design of high-performing integrated delivery networks. These market assessments were required by the VA Maintaining Systems and Strengthening Integrated Outside Networks (MISSION) Act of 2018.

These market assessments will culminate with an Asset and Infrastructure Review (AIR) Commission Report that will present the Veterans Health Administration's (VHA's) plan for the future of VA health care, enabling Veterans to access the right high-quality care in the right location. Recommendations from the market assessments will be finalized and submitted by the Secretary of VA to the presidentially appointed AIR Commission for consideration. The AIR Commission will submit its recommendations to the President for review and approval, prior to the recommendations going to Congress for review and approval.

This Specialty Care National Planning Strategy establishes guidelines that will help develop Multi-specialty Community-Based Outpatient Clinic (MS CBOC) and Health Care Center (HCC) opportunities. Using comprehensive VA data, the guidelines can facilitate improved specificity of on-site specialty care capabilities within outpatient MS CBOCs and HCCs for the evolving needs of Veterans. This strategy assumes telehealth will continue to evolve and support all sites of care across the enterprise.

The VHA Chief Strategy Office (CSO), committed to working with VHA program offices to improve programs and services that best serve Veterans, developed the Specialty Care National Planning Strategy in consultation with numerous specialty care offices.

Outpatient Clinics and Specialty Care Overview

Common specialty care delivery challenges include balancing capacity with current and future demand, managing referrals and coordinating care, providing the continuum of services in rural areas, and implementing ever-evolving technologies at scale.

A CBOC is classified as an MS CBOC when it has at least two specialties that provide a minimum of 500 on-site encounters per year. With the advancements in telehealth, many specialties can be delivered remotely to any location across the network. However, this strategy provides tiers of MS CBOCs consisting of combinations of specialty services that are likely to be successfully delivered in-person in different market conditions. A site is classified as an HCC when it is authorized to perform ambulatory surgery and/or invasive procedures, which may require moderate sedation or general anesthesia. There are two tiers of HCCs. Tier 1 accommodates invasive procedures using moderate sedation in a procedure room but is not designated as an

ambulatory surgery center (ASC), and Tier 2, which is designated as an ASC and hosts higher complexity procedures within operating rooms. This strategy provides HCC Tier 1 planning guidelines for procedure centers, and the MAHSO Surgery National Planning Strategy (separate from this report) provides planning guidelines for HCC Tier 2 for operating rooms.

The planning guidelines are intended to assist in the development of future market outpatient specialty care strategies and aid in long-range planning. Telehealth specialty services will continue to complement on-site delivered care and are covered in more detail in the MAHSO Telehealth National Planning Strategy, separate from this report.

There are several VA program offices that have oversight of outpatient specialty care services that are delivered in MS CBOCs and HCCs, including but not limited to the National Specialty Care Program Office (comprised of offices of 24 specialties), the Office of Dentistry, the Office of Rehabilitation and Prosthetic Services (comprised of offices for Audiology, Physical Therapies, Chiropractic Care, and others), the National Surgery Office, and others.

Resulting Planning Guidelines

Planning guidelines and thresholds inform the opportunities developed in the market assessment process. The rationale for establishing VA planning guidelines and thresholds is rooted in the belief that quality of care, patient safety, and/or access to care may be compromised when a service does not meet pertinent measures.

As a result, the planning priority for the Specialty Care National Planning Strategy is to provide a continuum of high-quality, accessible specialty care by leveraging VA assets to their maximum capacity – including facilities, providers, technology, and Federal and academic affiliate partnerships – to best serve Veteran needs.

The Specialty Care National Planning Strategy developed quantitative and qualitative planning guidelines across demand, supply, access, quality, and other applicable domains for varying MS CBOC and HCC types and the specialties that are likely to be sustainable in each facility type given their respective market conditions. A summary of the primary demand planning guidelines is as follows:

Specialty Care in MS CBOCs and HCCs Planning Guidelines

Table 1: *Specialty Care in MS CBOCs and HCCs Planning Guidelines*

Service	Primary Planning Guideline
MS CBOC	**Small MS CBOC** *Provides 2-3 on-site specialties* • **Open/Maintain**:

	○ Rural county*: 10-year projected enrollees within a 60-minute drive time are ≥ 4,300 ○ Urban county: 10-year projected enrollees within a 60-minute drive time are ≥ 5,400 ○ Site to have projected 2.0 FTEs' equivalent relative value units (RVU) for a specialty to build specialty-specific spaces to support utilization of space and support coverage of high-demand services. **Medium MS CBOC** *Provides 4-5 on-site specialties* • **Open/Maintain**: 10-year projected enrollees within a 60-minute drive time are ≥ 7,700 ○ Site's VA health care system to have projected 2.0 FTEs' equivalent RVUs of a specialty to build specialty-specific spaces at the MS CBOC to support utilization of space and to avoid one-provider service lines, supporting better access for Veterans. **Large MS CBOC** *Provides 6-8 on-site specialties* • **Open/Maintain**: 10-year projected enrollees within a 60-minute drive time are ≥ 8,400 ○ Site's VA health care system to have projected 2.0 FTEs' equivalent RVUs of a specialty to build specialty-specific spaces at the MS CBOC to support utilization of space and to avoid one-provider service lines, supporting better access for Veterans.
HCC	**HCC Tier 1 – HCC with Outpatient Procedure Center (Non-ASC)** *Provides between 9-23 on-site specialties* • **Open**: ○ Rural market or submarket: Procedures along with surgical cases are included in the scope of rural HCC Tier 2 (HCC w/ ASC) guidelines from the MAHSO Surgery National Planning Strategy; therefore, rural market's surgical and procedural planning needs to be done holistically. If no surgical cases are authorized at a site, the site should have a 10-year projected 3,200 annual procedures to support building a net new two-room procedure center. ○ Urban Market: 10-year projected enrollees within a 60-minute drive time is ≥ 34,720 or projected procedures per year are ≥3,200 for a shared procedure room (GI, Endo, Urology, or others). • **Maintain:** ○ Urban market: Procedure cases per year are ≥ 1,600 (shared procedure room).

* For planning purposes, geographic designations such as counties, submarkets, and markets are classified as either rural or urban based on where most enrollees live. For example, if greater than 50% of enrollees within a county live in a rural area, the county is considered a rural county. If 50% or fewer enrollees live in rural areas, the county is considered an urban county.

Future Program Planning

VA will use the national planning guidelines to apply standard programmatic criteria to major strategic opportunities identified in the market assessments. The planning guidelines will also inform future quadrennial market assessments and other long-range planning exercises.

Conclusion

The Specialty Care National Planning Strategy guidelines and thresholds support efforts to match capacity planning to Veteran demand and establish sound, Veteran-centric recommendations to inform and support the development of the VA AIR Commission Report. They are also intended to add to existing VA planning guidelines and be used for future planning activities.

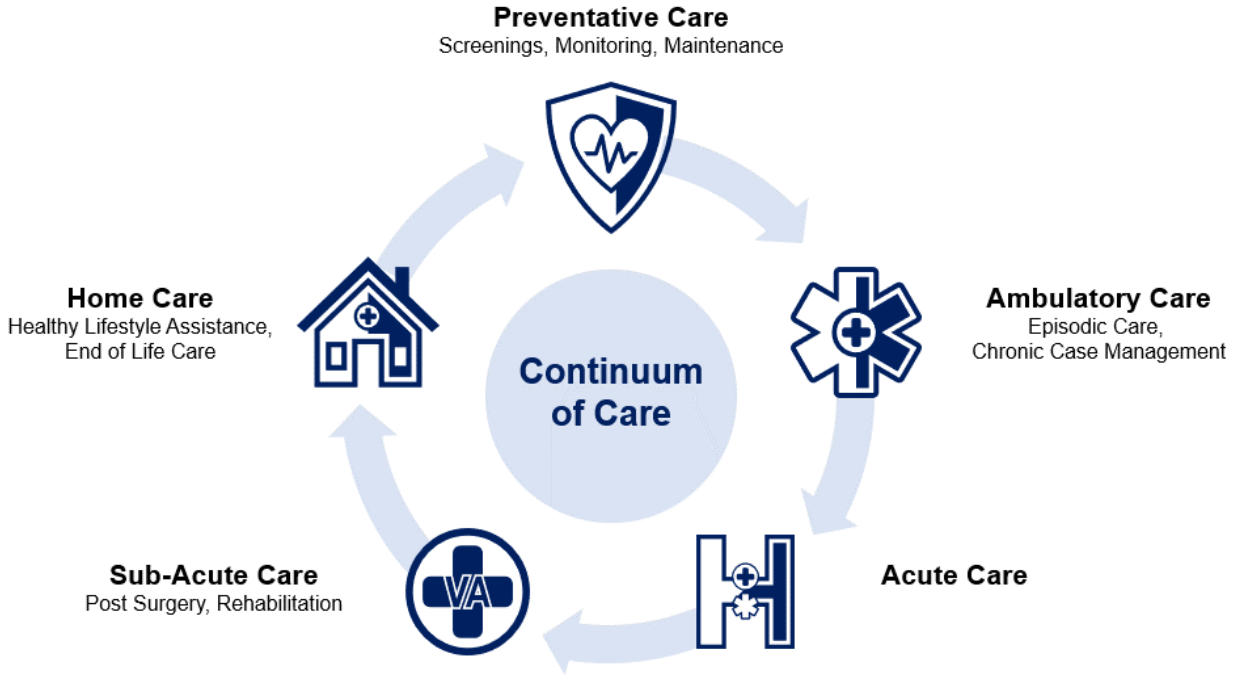
1. Specialty Care Overview

Specialty Services across the Continuum of Care

Specialty care refers to advanced care that is specific to a demographic, disease, or skill set, for example, gynecology, oncology, and general surgery, respectively. Specialty care can serve many purposes across the continuum of care – from preventative screenings, to addressing one-time (episodic) incidences, to chronic disease management – and ideally be coordinated by the patient's primary care provider.

Specialty care is integral across all parts of the care continuum. Specialty services accounted for approximately 66% of all VA delivered outpatient encounters in fiscal year (FY) 2019 and the scope and acuity of these services differed greatly.

Figure 1: *Specialty Care across the Care Continuum*



Specialty care services are not only diverse in scope but in utilization. Some services are heavily utilized by the general population, such as optometry (approximately 75% of adults use eyeglasses or contact lenses [1]), whereas others are less frequently utilized. The lower-volume, less utilized services are often harder to deliver successfully due to resource challenges, including staffing, infrastructure requirements, and implementing and maintaining costly technologies.

Understanding how demand differs across the many specialty care services, as well as the efficiencies and challenges of specialty programming, is important to designing a well-balanced health care delivery system.

1.1 Outpatient Specialty Care Planning

It is important for health systems to provide care in the right location at the right time in a manner that equitably distributes care services to patients and that does not jeopardize local health care markets. As the cost of health care continues to increase across the country, causing hospital closures and increased access challenges, the importance of long-range strategic planning increases with it.

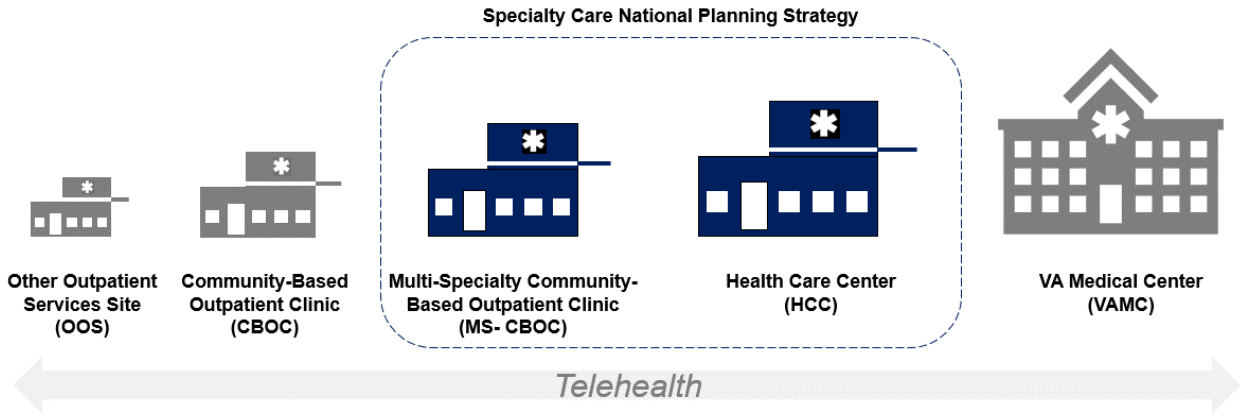
Long-range (10-year) planning is used to project capital spend so an organization may plan for and prioritize major capital projects. It can be performed using several different methods but is always intended to ensure dollars are spent in alignment with organizational goals. Some organizations follow a population-based method, leveraging provider-to-population ratios to inform future strategic needs (for example, one optometrist for every 100,000 people). Other organizations may use a utilization-based method to inform future strategic needs (for example, one optometrist for every 1,700 projected visits).

This planning strategy uses an enrollee-based method for long-range planning purposes and assumes specific site programming will be done at the local level once projects are approved (closer to the time of targeted activation).

Specialty Care Services, Sites, and Stakeholders

The Veterans Health Administration's (VHA's) Chief Strategy Office's (CSO's) mission is to provide enterprise-wide strategic direction to facilitate decision-making and guide transformative health care for Veterans. CSO is committed to working with offices across the organization to create national planning strategies that best serve Veterans. To develop the Specialty Care National Planning Strategy, internal VA subject matter experts as well as external commercial and other Federal health care resources were consulted.

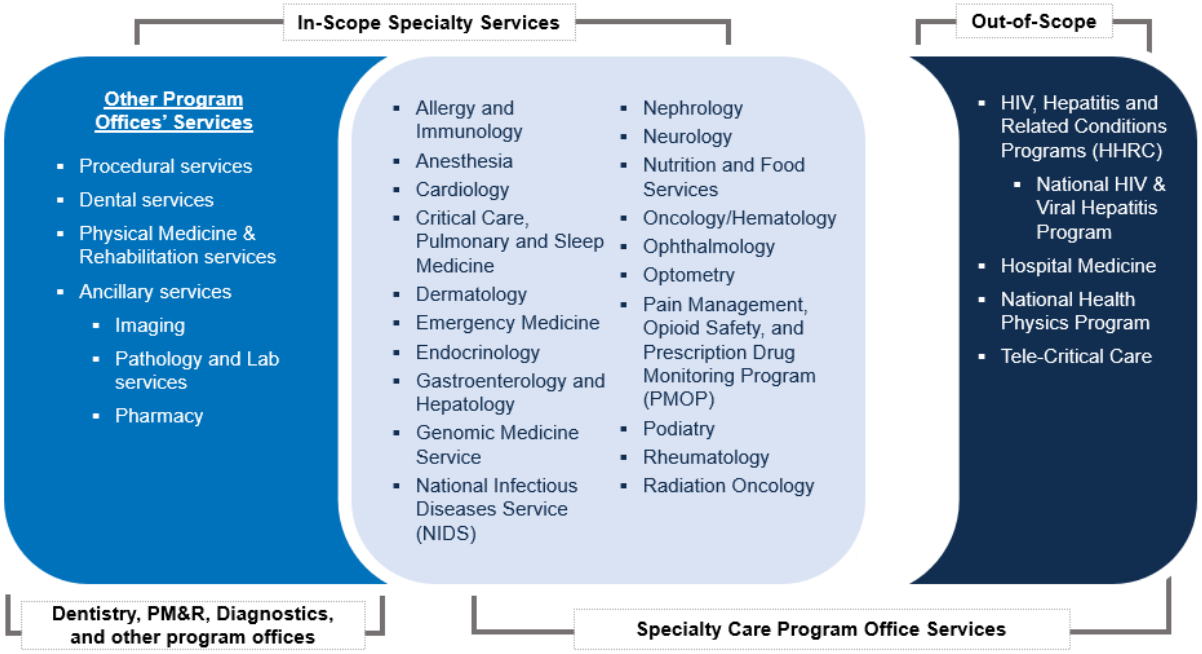
Figure 2: *Specialty Care National Planning Strategy*



While outpatient specialty care services can be delivered at any facility classification or by telehealth, there are two types of VA outpatient-only specialty care facilities that this strategy provides planning guidelines for: a multi-specialty community-based outpatient clinic (MS CBOC) and a health care center (HCC). See Appendix D for the full range of VHA site classifications and definitions.

In VA facility planning, any ambulatory specialty (non-primary care or mental health clinical services) that provides more than 500 on-site encounters a year may be counted as a specialty care service towards that facility's site classification. The range of specialties may include dental, rehabilitation services, or any of the medical or surgical specialties. As such, the scope of services under the general term 'specialty care' is extensive, and because of this there are several VA program offices that guide and consult a broad range of specialty care.

Figure 3: *In Scope and Out of Scope Specialties and Key Offices*



Additionally, the resulting number of combinations of services that could be delivered in an outpatient clinical setting and respective stakeholders is vast. An overview of a few key offices, but not all, is summarized in the following section. This strategy helps narrow the possibilities to several likely combinations to aid in long-range planning.

1.2 Program Offices

Specialty Care Program Office

The mission of SCPO is to ensure the development and oversight of policies governing the provision of specialty care to include:

- Regulatory requirements
- Patient care access needs
- Patient safety issues and
- Timely reporting requirements

SCPO also provides program design, guidance, and quality assurance for medical and select surgical sub-specialties, and nutrition services and programs. Looking forward, the office plans to expand the established Tele-Critical Care program, as well as virtual services in precision oncology and pain medicine. While these virtual modalities are under the purview of SCPO and are key VHA priorities, the programming will be addressed through a separate planning strategy (see the Telehealth National Planning Strategy).

Office of Dentistry

The goal of VA Dental Services is to provide high-quality dental treatment to eligible Veterans in a manner consistent with the following core values: patient safety, timely access, quality outcomes, cost effectiveness, evidence-based care, and patient and provider satisfaction. [2]

National Physical Medicine and Rehabilitation Services

Physical Medicine and Rehabilitation (PM&R) Services' three-fold mission is:

1) To provide comprehensive rehabilitation of the Veteran and caregiver across a full continuum of care. Utilizing an interdisciplinary team approach, PM&RS develops and implements an individualized plan of care for each Veteran to prevent, manage, or limit impairments and disabilities of individual patients, while improving the patient's functional abilities, independence, and quality of life.
2) To commit to the education and training of rehabilitation professionals necessary to deliver all required rehabilitation functions to support patient care.
3) To support the Office of Research and Development, particularly the Rehabilitation Research and Development Service, in promoting clinical and scientific research directed toward the advancement of the art and the science of medical rehabilitation and engineering technology. [3]

National Surgery Office

The National Surgery Office (NSO)'s mission is to establish surgical policy and provide operational oversight of clinical and quality improvement activities; to support, promote, and ensure the delivery of high-quality, efficient, and Veteran-centric surgical care and services; and to provide subject matter expertise to VA leadership, the Veterans Integrated Service Networks (VISNs), VA Medical Centers (VAMCs), and the surgical community. [4]

Diagnostics Services

Diagnostic Services facilitates the provision of timely, cost-effective, and high-quality diagnostic care. It includes the clinical services of Pathology and Laboratory Medicine, Radiology, and Nuclear Medicine. Combining these diagnostic services and employees into an interdisciplinary group facilitates the sharing of knowledge and permits uniformity of practices and policies. [5]

Challenge Areas and Opportunities

There are thousands of permutations of specialty care services that could be offered in outpatient clinics. Understanding the combinations of services that are likely to be successful in certain market conditions can help planners refine the estimated size and cost of future needs.

Staffing

Recruiting and retaining specialty care providers is a challenge that is not expected to dissipate in the future. There is a widespread shortage of specialty care providers nationally and the shortage is projected to increase as more physicians reach retirement age [6]. This challenge may be exaggerated in VA because of federally mandated salary ranges.

Coordinating Care

The MISSION Act of 2018 influenced the establishment of drive time requirements for VA and Community Care Network (CCN) referral eligibility for enrolled Veterans seeking secondary care services. When an enrollee that is seeking specialty care services is outside of a 60-minute drive time from a VA point of care, they are eligible to receive care with community providers. Though community providers help VA enrollees have access to quality care in many regions across the U.S., VA leaders have identified challenges coordinating this care.

The increase in referrals since the MISSION Act has made care coordination challenging for VA. According to VA leadership, CCN providers, including academic affiliates, do not have the necessary staffing support to provide continuity of specialty care and staffing issues can affect Veteran access and care delivery outcomes. Additionally, wait times and drive times may be longer to community providers than those of the nearest VA point of care, even if it is more than a 60-minute drive time from the enrollee.

Another reported challenge when leveraging community care is the limited ability to control quality and the minimal visibility into the provider's plan of care. VA leadership highlighted that the over-utilization of unnecessary procedures and the lack of control of complex patients were common examples of care coordination challenges.

Long-range planning provides VA the opportunity to invest in services VA excels in recruiting and training for, providing high-quality health care in state-of-the-art outpatient medical facilities, while investing in technologies and partnerships that help secure access for Veterans in hard-to-hire communities.

2. Current State Overview

2.1 Demographic and Programmatic Distribution

National Specialty Care Landscape

Most people use specialty care services more as they age, and most older adults have at least one chronic condition [7]. According to data from the National Ambulatory Medical Care Survey (NAMCS), a longitudinal study of ambulatory care trends that is published under the Centers for Disease Control (CDC), there are approximately 860 million physician office visits per year in the U.S. This represents a utilization rate of approximately 267 visits per 100 population – or 2.6 visits for each person each year. These visits are divided almost 50/50 between primary care and specialty care visits and both the utilization rate and division of services have been relatively constant since 2010.

Figure 4: *Physician Office Visits, by Selected Physician Characteristics: United States, 2018*

Physician characteristic	Number of visits (standard error) in thousands	Percent distribution (standard error of percent)	Number of visits per 100 persons per year[1–3] (standard error of rate)
All visits	860,386 (37,935)	100.0 …	267.1 (11.8)
Professional identity			
Doctor of medicine	803,404 (37,174)	93.4 (0.9)	249.4 (11.5)
Doctor of osteopathy	56,982 (7,561)	6.6 (0.9)	17.7 (2.3)
Specialty type[4]			
Primary care	440,155 (31,474)	51.2 (2.3)	136.6 (9.8)
Medical specialty	203,969 (21,600)	23.7 (2.3)	63.3 (6.7)
Surgical specialty	216,262 (19,037)	25.1 (2.2)	67.1 (5.9)
Metropolitan status			
MSA[5]	764,804 (37,461)	88.9 (2.4)	272.7 (13.4)
Non-MSA	95,582 (21,946)	11.1 (2.4)	229.4 (52.7)

Source: National Ambulatory Medical Care Survey: 2018 National Summary Tables

As also reported in NAMCS, utilization of physician office visits varies by age. Those over age 65, have 5.5 visits per person per year where those under age 65 use far fewer.

Figure 5: *Office Visits, by Patient Age and Sex: United States, 2018*

Patient age and sex	Number of visits (standard error) in thousands	Percent distribution (standard error of percent)	Number of visits per 100 persons per year[1] (standard error of rate)
All visits	860,386 (37,935)	100.0 …	267.1 (11.8)
Age (years)			
Under 15	109,930 (14,314)	12.8 (1.6)	180.7 (23.5)
Under 1	22,912 (3,327)	2.7 (0.4)	595.7 (86.5)
1–4	33,926 (5,312)	3.9 (0.6)	212.6 (33.3)
5–14	53,091 (7,202)	6.2 (0.8)	129.4 (17.5)
15–24	58,754 (4,957)	6.8 (0.5)	139.9 (11.8)
25–44	158,770 (12,842)	18.5 (1.3)	186.9 (15.1)
45–64	251,488 (14,876)	29.2 (1.0)	302.5 (17.9)
65 and over	281,444 (18,327)	32.7 (1.6)	550.2 (35.8)
65–74	147,017 (9,550)	17.1 (0.8)	485.7 (31.6)
75 and over	134,427 (10,813)	15.6 (1.0)	643.8 (51.8)

Source: National Ambulatory Medical Care Survey: 2018 National Summary Tables

NAMCS also reports utilization rates for various specialties. The specialties with the highest utilization as measured by the number of visits are listed in the figure below. Visits per 100 persons per year is also listed.

Figure 6*: Physician Office Visits, by Selected Physician Characteristics: United States, 2016*

Physician characteristic	Number of visits in thousands (standard error in thousands)	Percent distribution (standard error of percent)	Number of visits per 100 persons per year[1–3] (standard error of rate)
All visits	883,725 (30,070)	100.0 …	277.9 (9.5)
Physician specialty[4]			
General and family practice	202,494 (18,247)	22.9 (1.8)	63.7 (5.7)
Pediatrics[5]	136,119 (16,931)	15.4 (1.7)	173.3 (22.4)
Internal medicine	81,701 (10,328)	9.2 (1.1)	25.7 (3.2)
Obstetrics and gynecology[6]	73,198 (8,457)	8.3 (0.9)	54.8 (6.5)
Dermatology	49,947 (5,533)	5.7 (0.6)	15.7 (1.7)
Ophthalmology	46,289 (4,068)	5.2 (0.5)	14.6 (1.3)
Orthopedic surgery	30,114 (4,280)	3.4 (0.5)	9.5 (1.3)
Psychiatry	29,993 (4,049)	3.4 (0.5)	9.4 (1.3)
Otolaryngology	28,965 (3,489)	3.3 (0.4)	9.1 (1.1)
Cardiovascular diseases	27,783 (4,581)	3.1 (0.5)	8.7 (1.4)
Urology	26,153 (4,298)	3.0 (0.5)	8.2 (1.4)
General surgery	15,685 (2,651)	1.8 (0.3)	4.9 (0.8)
Neurology	14,407 (2,471)	1.6 (0.3)	4.5 (0.8)
All other specialties	120,875 (13,379)	13.7 (1.4)	38.0 (4.2)

Source: National Ambulatory Medical Care Survey: 2016 National Summary Tables

Figure 7: *Presence of Selected Chronic Conditions at Office Visits, by Geographic Area: United States, 2018*

Chronic condition	Metropolitan status	
	MSA[1]	Non-MSA[1]
	Percent of visits (standard error of percent)	
All visits	88.9 (2.4)	11.1 (2.4)
Hypertension	28.5 (1.6)	47.0 (4.6)
Hyperlipidemia	18.0 (1.7)	30.8 (4.0)
Arthritis	11.5 (1.5)	10.8 (2.4)
Diabetes[2]	13.3 (1.0)	18.7 (2.9)
Depression	9.6 (0.8)	18.9 (3.7)
Obesity	7.8 (0.7)	14.0 (3.4)
Asthma	5.8 (0.6)	6.8 (1.7)
Cancer	6.8 (0.9)	7.9 (1.4)
COPD[3]	3.6 (0.5)	8.3 (2.0)
Osteoporosis	2.4 (0.5)	2.2 (0.9)

[1]MSA is metropolitan statistical area.
[2]Includes both Type 1 diabetes mellitus (insulin dependent or IDDM) and Type II diabetes mellitus (non-insulin dependent or NIDDM), and diabetes with type unspecified. Excludes diabetes insipidus and gestational diabetes.
[3]Chronic obstructive pulmonary disease.

NOTES: Presence of chronic conditions was based on the checklist of chronic conditions and reported diagnoses. Combined total visits by patients with chronic conditions and percentage of visits exceeds 100% because more than one chronic condition may be reported per visit. Numbers may not add to totals because more than one chronic condition may be reported per visit.

Source: National Ambulatory Medical Care Survey: 2018 National Summary Tables

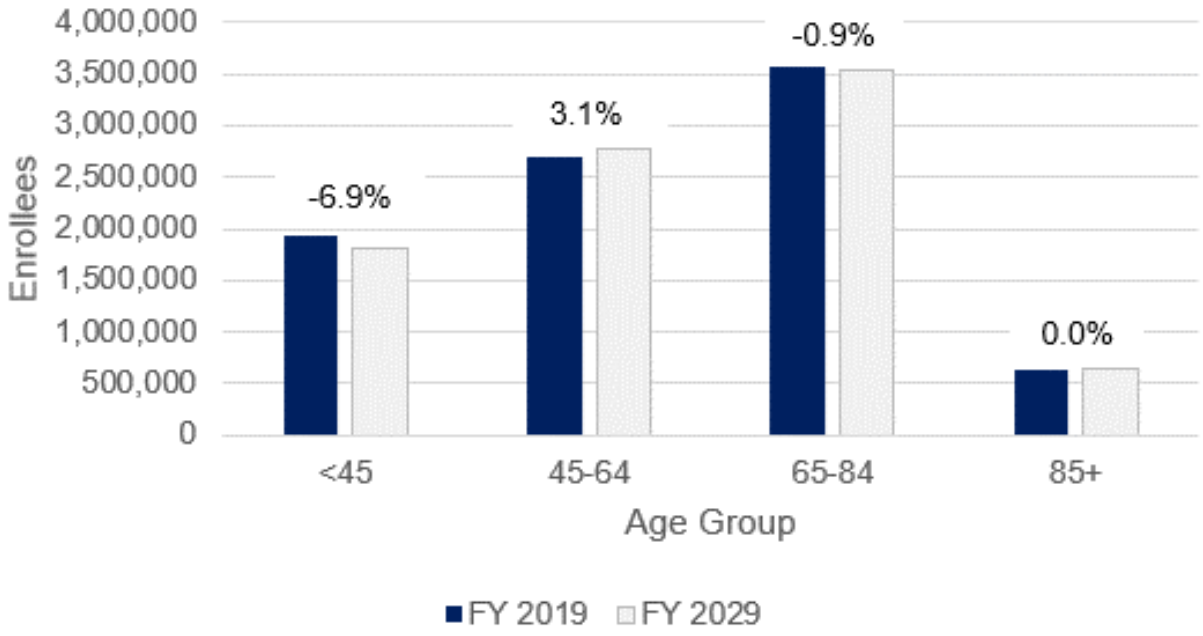
2.2 Current VA Program Review and Analysis

National Veteran Enrollment Overview

There were 13.7 million Veterans that were eligible to enroll to receive health care services through VHA in FY 2019, of which 8.8 million (64.4%) were enrolled. Of those 8.8 million enrolled, approximately 6.0 million (68.2%) were identified as core uniques, which are Veterans who are recognized as VA's primary users of health care services [8].

Overall, the number of Veteran enrollees is projected to remain stable, with a slight projected decrease of 1.3% between FY 2019 and FY 2029, from 8.8 million to 8.7 million enrollees. The age group demographics within the enrollee population are also projected to remain consistent, as shown in the figure below.

Figure 8: *FY 2019 - 29 Enrollees by Age Group*



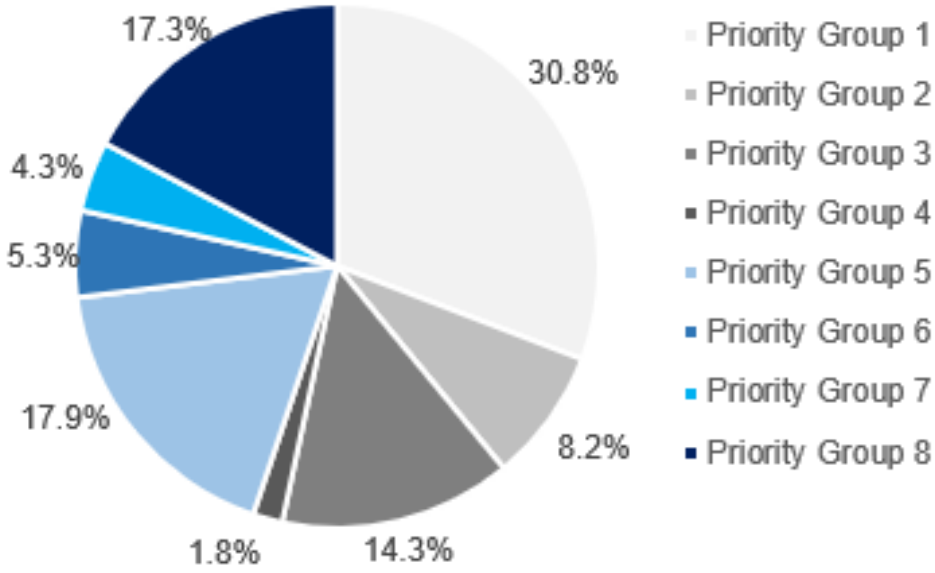
Source: BY19 EHCPM Vetpop & Enrollment*

Priority Group demographics, however, are projected to shift substantially between FY 2019 and FY 2029. The largest Priority Group, Group 1, accounted for 30.8% of FY 2019 enrollees and is projected to increase by 48.4% between FY 2019 and FY 2029 (from 2.7 million enrollees to 4.0 million enrollees). All other priority groups are projected to decrease, resulting in Priority Group 1 projecting to account for nearly half (46%) of all FY 2029 enrollees.

This is important to long-range planning because Priority Group 1 enrollees rely on VA services more than other priority groups. These reliance assumptions are included in the VA Enrollee Health Care Projection Model (EHCPM) that is used for budget requests.

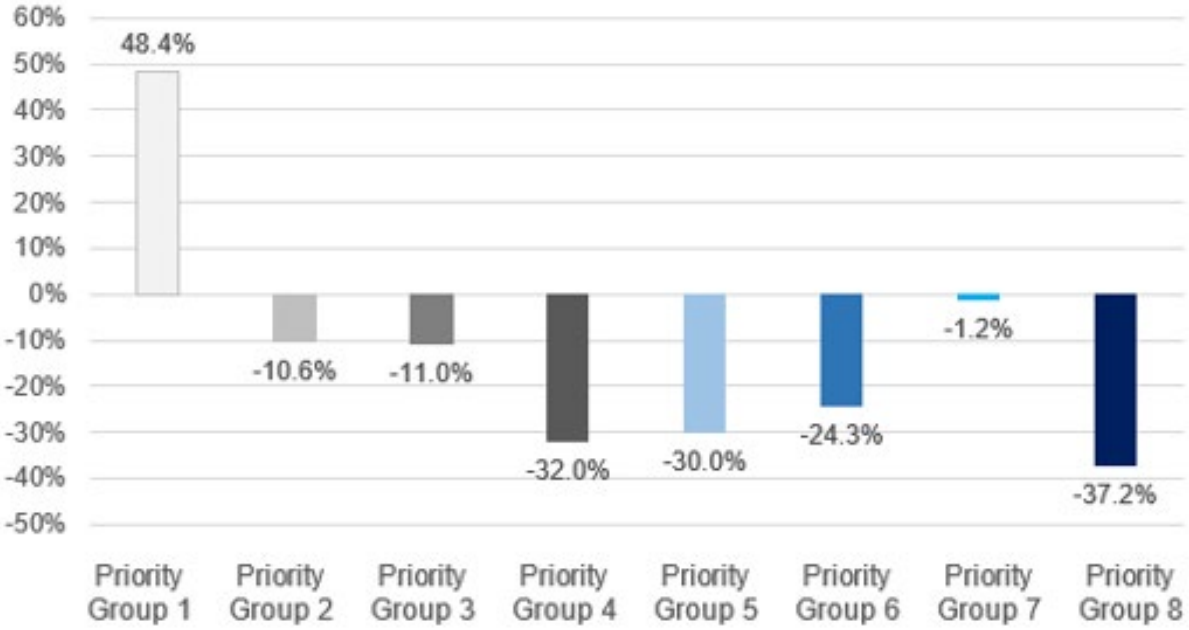
* The base year (BY) is the first (or index) year of a series of years in a projection model upon which the projections are based.

Figure 9: *FY 2019 Percent Enrollment by Priority Group*



Source: BY19 EHCPM Vetpop & Enrollment

Figure 10: *Priority Group Enrollment Percent Change, FY 2019 -19*



Source: BY19 EHCPM Vetpop & Enrollment

VA Specialty Care Overview

Demand

Encounter data are extracted from the VHA Support Service Center (VSSC) Encounters Cube, then categorized into Health System Planning Categories (HSPC). Between FY 2018 and FY 2019, specialty care HSPC encounters in MS CBOCs and HCCs increased by approximately 8%. Encounter volume across medical, surgical, and rehabilitation HSPCs all increased in volume, except for three service lines, Infectious Disease, Occupational Health, and Otolaryngology, which decreased by 9.2%, 10.1%, and 0.4%, respectively.

Table 2: *Historical Specialty Care Encounter Volume Within MS CBOC and HCC*

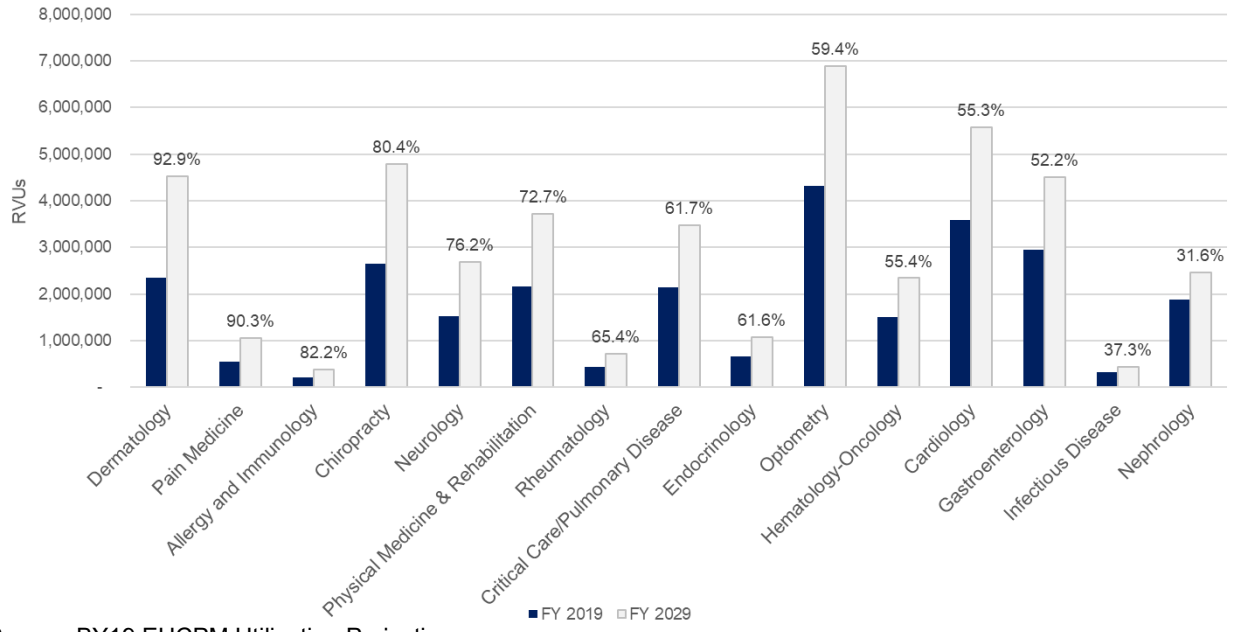
Specialty Type	Health System Planning Category (HSPC)	FY18 Enc	FY19 Enc	FY18-FY19 % Change
Medical	Optometry	790,804	831,522	5.1%
Medical	Cardiology	183,682	199,987	8.9%
Medical	Critical Care / Pulmonary Disease	179,371	197,905	10.3%
Medical	Dermatology	143,401	145,612	1.5%
Medical	Gastroenterology	75,001	81,700	8.9%
Medical	Neurology	46,884	51,960	10.8%
Medical	Endocrinology	40,736	54,867	34.7%
Medical	Pain Medicine	36,445	42,563	16.8%
Medical	Emergency Medicine	35,400	36,997	4.5%
Medical	Hematology-Oncology	33,748	38,890	15.2%
Medical	Chiropracty	32,596	43,991	35.0%
Medical	Rheumatology	27,343	30,634	12.0%
Medical	Nephrology	24,833	33,352	34.3%
Medical	Infectious Disease	7,320	6,648	-9.2%
Medical	Allergy and Immunology	6,190	8,208	32.6%
Medical	**Subtotal**	**1,663,754**	**1,804,836**	**8.5%**
Rehabilitation	Audiology	717,248	771,205	7.5%
Rehabilitation	Physical Medicine & Rehabilitation	708,322	768,641	8.5%
Rehabilitation	Speech Pathology	9,669	11,678	20.8%
Rehabilitation	Occupational Health	2,473	2,224	-10.1%
Rehabilitation	**Subtotal**	**1,437,712**	**1,553,748**	**8.1%**
Surgical	Podiatry	372,466	390,825	4.9%
Surgical	Ophthalmology	118,263	121,109	2.4%
Surgical	Surgery	88,741	101,036	13.9%
Surgical	Orthopaedic Surgery	87,698	92,867	5.9%
Surgical	Prosthetics/Orthotics	84,716	97,360	14.9%
Surgical	Urology	77,251	86,311	11.7%
Surgical	Otolaryngology	16,685	16,618	-0.4%
Surgical	Obstetrics & Gynecology	11,987	12,449	3.9%
Surgical	Vascular Surgery	10,265	10,384	1.2%
Surgical	Plastic Surgery	7,329	8,310	13.4%
Surgical	**Subtotal**	**875,401**	**937,269**	**7.1%**
	Total	**3,976,867**	**4,295,853**	**8.0%**

Source: VSSC Encounters Cube

Looking ahead, medical, surgical, and rehabilitation HSPCs' demand is projected to increase, even though enrollment is projected to remain stable. This growth is attributed to many factors including priority group changes that affect reliance on VA care, the aging of the Veteran population, and advancements in technology and medicine that support the continued shift of complex care to outpatient settings. The following three

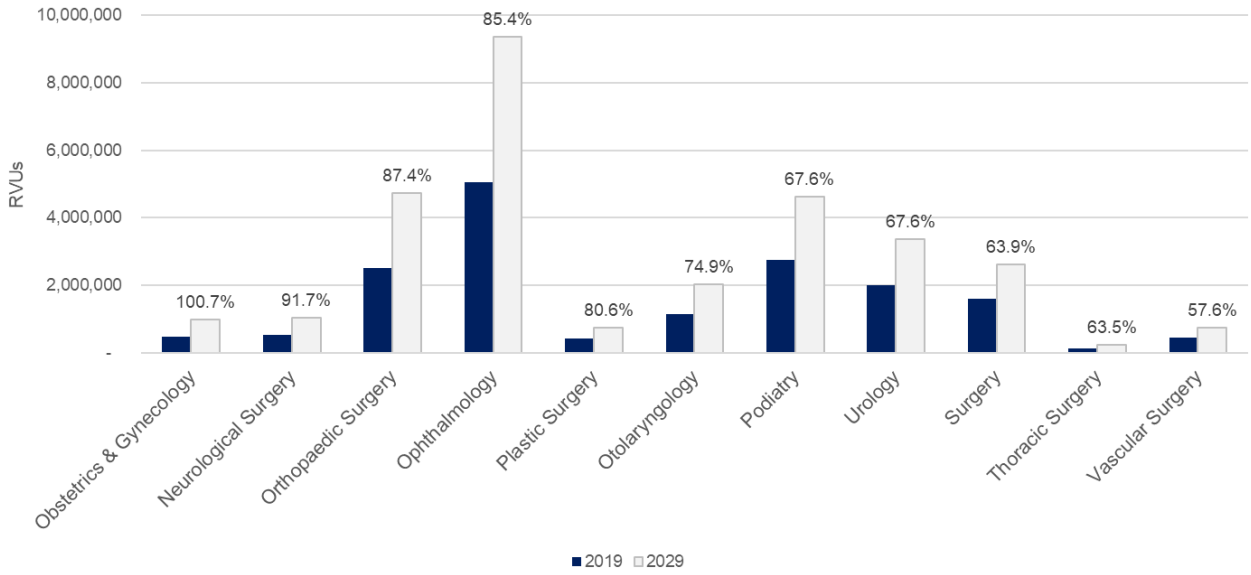
figures show projected growth by service line from services with the greatest 10-year percent change to the least percent change (from left to right).

Figure 11: *Medical Specialty HSPCs Projected Workload Change, FY 2019 -29, From Greatest Percent Change to Least Percent Change*



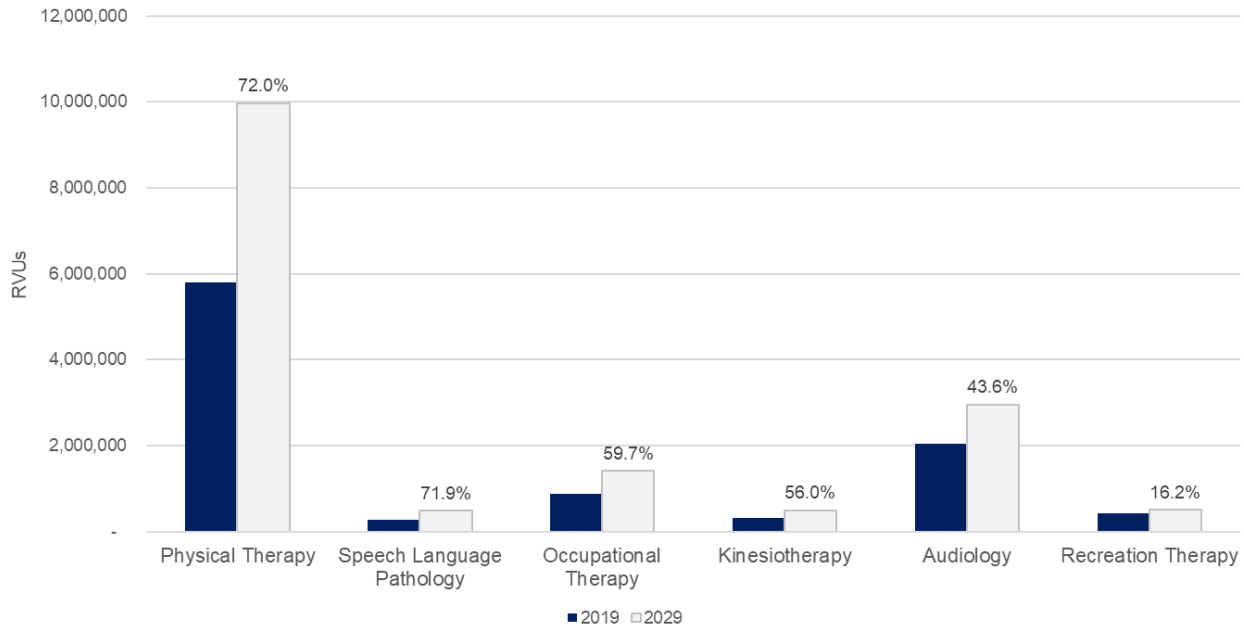
Source: BY19 EHCPM Utilization Projections

Figure 12: *Surgical Specialty HSPCs Projected Workload Change, FY 2019 -29, From Greatest Percent Change to Least Percent Change*



Source: BY19 EHCPM Utilization Projections

Figure 13: *Rehab Specialty HSPCs Projected Workload Change, FY 2019 -29, From Greatest Percent Change to Least Percent Change*



Source: BY19 EHCPM Utilization Projections

Dental Services

For Veterans, dental eligibility is different than all other VA medical benefits. [9] 38 U.S.C. § 1712 defines outpatient dental eligibility. This statute outlines the conditions that need to be met for a Veteran to receive dental care. [10] Veterans are either eligible for a comprehensive scope of care, or dental care that is focused or limited in the scope of services. Veterans that have 100% service-connected disabilities, an unemployability rating, former prisoner of war or have a service-connected oral disability or trauma rating are eligible for the comprehensive dental benefit. Veterans that have a medical condition that is negatively affected by dental problems, or meet other narrow criteria are eligible for a limited or problem focused dental benefit. [10] Approximately 1.4 million Veterans are eligible for comprehensive dental care and are therefore the most relevant group to capital planning. Approximately 554,000 out of the total 8.83 million enrollees (6%) received comprehensive dental care and approximately 1.25% of VA health care users are referred for a limited or focused scope of care.

Promoting preventive dental care (for example, regular exams and cleanings) is one of the priorities of VA's dental service delivery model. Prophylaxis and lower-acuity dental services can be delivered in outpatient clinics such as MS CBOCs or HCCs, and higher-acuity or more specialized services such as oral/maxillofacial and periodontal surgeries are recommended to be provided at VAMCs. In FY 2019, there were 247 sites that provided dental services. Market share, as defined by the percent of dental eligible Veterans seen, was approximately 33% and the Office of Dentistry is aiming to increase it to closer to 65% to mirror the general population's utilization of dental services. [11]

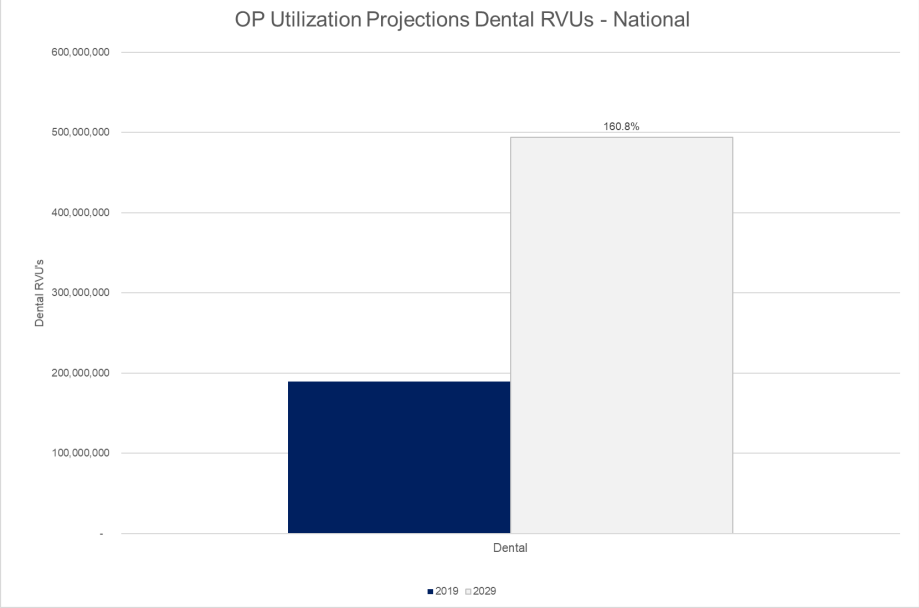
Table 2: *VA Sites with Dental Services by Site Classification with Respective Visit Volumes*

Site Classification	Number of Sites with Dental	% of Total Dental Sites	Site Type's Total FY 2019 Visit Volume	FY 2019 Average Visits per Site Type
VA Medical Center (VAMC)	165	67%	1,790,827	10,920
Multi-Specialty CBOC	55	22%	244,034	4,604
Health Care Center (HCC)	12	5%	85,830	7,153
Primary Care CBOC	10	4%	22,362	2,485
Other Outpatient Services (OOS)	5	2%	28,487	5,697
Grand Total	**247**	**100%**	**2,171,540**	N/A

Source: Co Dental Comanaged

Given the distinction between dental eligibility and other VA health care eligibility, there are differences when measuring projected workload change for dental RVUs shown in Figure 14, compared to medical RVUs shown in Figure 11. Dental workload projections are modeled based on dental uniques, dental eligibles, and assumptions developed by the Office of Dentistry. The dental workload projections utilize historical dental RVU changes between 2011 and 2018, which have an annual growth rate of 7.9%. The Office of Dentistry is expecting a significant increase in projected RVU demand for dental services due to the MISSION Act.

Figure 14: Dental Projected Workload Change, FY 2019 -29



Source: Co Dental Comanaged

Dialysis Centers

All enrolled Veterans are eligible for VA Dialysis Program services. Every VA medical facility with a dialysis program must be able to provide Renal Replacement Therapy (RRT) services for Veterans including in-center dialysis, renal transplantation, home hemodialysis (HD), and peritoneal dialysis (PD) training or alternatively have a written agreement with a partner facility that can provide respective services. VA leverages partnerships with both VA and Department of Defense (DoD) providers to expand access to in-center dialysis programs for Veterans. [12]

VA and DoD partnerships include dual-credentialed joint venture dialysis programs, where VA delivers dialysis services at Travis Air Force Base, Tripler Army Medical Center, Womack Army Medical Center, and Lovell Federal Medical Center. A summary of VA and DoD partnership best practices is in Section 3.

Dialysis services can be delivered at alternative VA facilities such as Community Living Centers (CLC) when needed. VA Pittsburgh Healthcare System created a dialysis program at its CLC which eliminates the need for Veterans to travel across town to another campus. The CLC dialysis center is more convenient for Veterans and saves on transportation costs. Plans for similar models are being developed for other VAMCs.

Partnerships and leveraging existing VA assets in lieu of building net-new locations to deliver dialysis is important for planning. The National Nephrology Program Office has an existing make-buy planning methodology for establishing dialysis centers, which is referenced in Section 4. [13]

Ancillary Services

Clinical laboratory, radiology, and pharmacy are the three core ancillary services that are also keystones to delivering comprehensive health care. Nearly all medical and surgical services rely on these three services for care planning and care delivery. Like specialties, each ancillary service has levels of complexity within its scope of practice that generally align with facility acuity levels. There are also many possible combinations of ancillary services that could be provided at a site of care. A generalized outline of ancillary services by care setting is outlined below. On-site ancillary services cumulate as the clinical setting increases in complexity.

Table 3: *Generic Ancillary Service by Clinical Setting Outline*

	Facility or clinical setting	*Ancillary level of support*	**Lab**	**Radiology**	**Pharmacy**
High	**Nationally Centralized Ancillary Service**		Genomics; esoteric and/or experimental testing	N/A	Mail Order Central Fill
	Regionally Centralized Ancillary Service		Anatomic Pathology; Blood Bank	Mobile imaging units; Radiologists may sit in centralized location(s)	Infusion Pharmacy, Mail Order Central Fill
Complexity Level	**Outpatient Surgical and/or Inpatient Acute Care Setting**	**High Complexity Ancillary Services**	On-site hematology and some microbiology testing	CT; MR; PET; Other high-end imaging modalities	Outpatient Pharmacy (sized to Rx fill demand)
	High-Volume Specialty Outpatient Clinic	**Medium Complexity Ancillary Services**	On-site chemistry testing	General Radiology (X-Ray), Bone Density	Outpatient Pharmacy (sized to Rx fill demand)
	Medium-Volume Outpatient Clinic	**Low Complexity Ancillary Services**	Point of Care (POC) lab testing (basic chemistry, urinalysis, and pregnancy testing)	Ultrasound	Automated Dispensing System
Low	**Low-Volume Outpatient Clinic**	**No Ancillary Support On- Site**	Specimen collection only. No on-site testing.	Imaging orders referred to nearby locations	Prescriptions sent to nearby pharmacy to fill or may leverage mail order pharmacy

VA Telehealth Services and Clinical Resource Hubs

Telehealth is provided at all geographic and administrative levels within VA. The type and breadth of service at each level is generally dependent on volume, access, costs in the community, and health care professional supply. At the facility (VAMC) level, health care professionals integrate telehealth into their care delivery to enhance the accessibility of their services across all disciplines. At the VISN level, services are organized to match supply with demand for high volume, lower cost services across the VISN to ensure consistent access. At consortia and/or national levels, services are organized to distribute scarce expertise, lower volume, and higher cost services to ensure equitable availability to all Veterans.

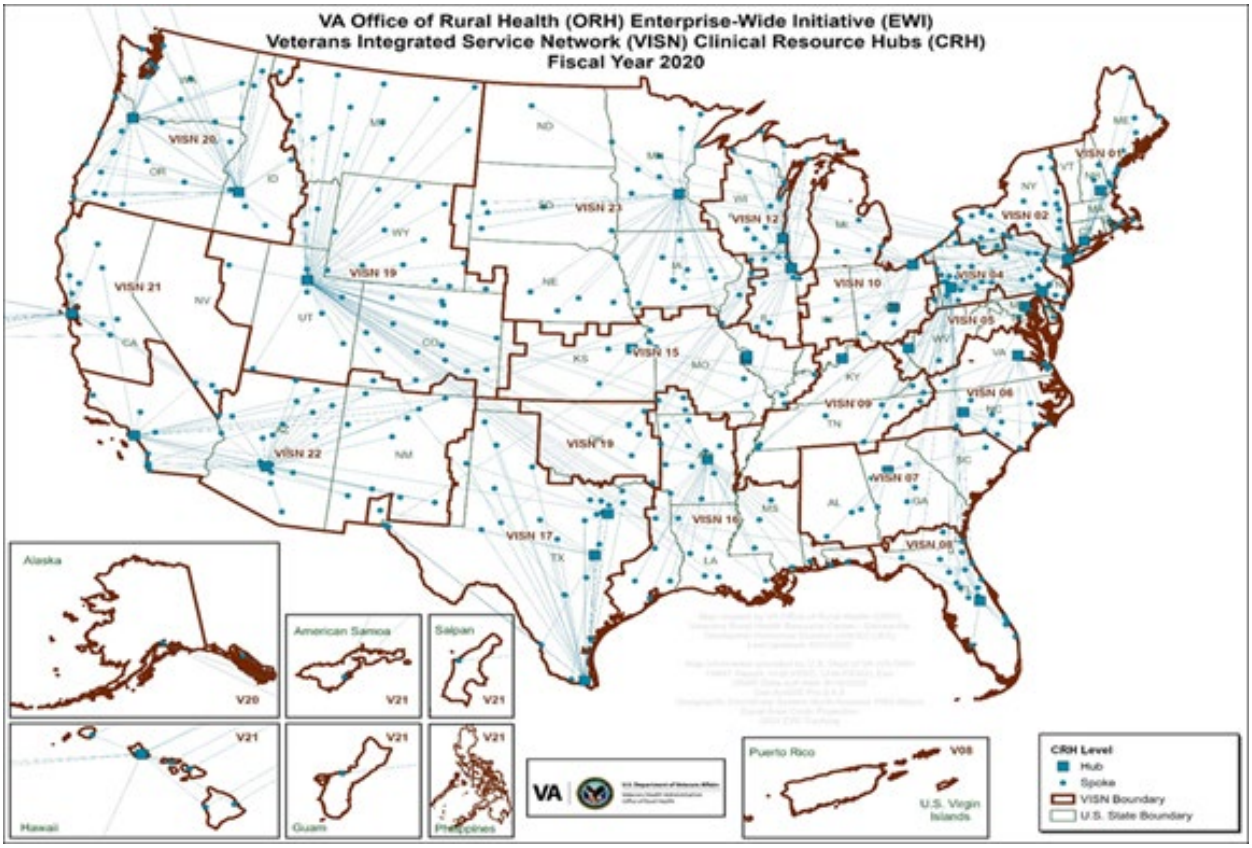
VA Clinical Resource Hubs (CRH) are a network of hubs and spokes that connect providers in resource-rich areas (hubs or host sites) to areas with provider challenges (spoke sites) to deliver care using telehealth. The host provider delivers video services to the Veteran at either the spoke site (in-person with other on-site clinical staff), the Veteran's home, or other partner locations. There is at least one CRH established in each VISN supporting both primary care and mental health. Tele-specialty care, however, is not yet offered through every VISN CRH but is growing. Several VISNs have begun creating networks for select specialties, which shows potential for further growth. The current specialties offered through VISN CRHs include: [14]

- Cardiology: VISNs 1, 2, 4, 9, 12, 16
- GI: VISNs 1, 2, 4, 9
- Sleep: VISNs 1, 10, 21
- Dermatology: VISNs 1, 4, 7, 12, 15
- Rehabilitation and Extended Care: VISN 10, 12
- Surgery: VISN 1, 2

The growing CRH initiative is a supplemental resource to outpatient clinics which often do not have access to many specialties, especially in rural areas. Tele-specialty care does not replace in-person care needs; however, it has the potential to vastly increase Veteran access to telehealth-friendly specialty services and limit Veteran travel to only visits that require in-person care delivery.

Looking ahead, market planning will need to incorporate the overlap of tele-specialty care and traditional specialty care delivery. The CRHs should be woven into health care planning as an efficient solution to meeting future Veteran demand.

Figure 15: *VA Clinical Resource Hub Networks*



Source: VA Office of Rural Health. 2020.

Access

The Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act of 2018 influenced the establishment of drive time requirements for VA and Community Care Network (CCN) referral eligibility. The drive time requirements acknowledged rurality for partner providers in the CCN by developing different requirements for rural and highly rural areas, but not for VA points of care. The drive time requirements are more lenient on CCN third party administrators (TPA) in an apparent effort to provide more care options for Veterans in a broader service area. These are in alignment with similar Medicare Network Adequacy drive time ranges and are consistent with commercial benchmarks, of which Medicare Advantage (a Federal criteria developed by CMS for Medicare patients) is the most common.

Table 4: *Primary Care and Specialty Care Drive Time Requirements Comparison (in minutes)*

	VA Access Standards			CCN TPA			Medicare Network Adequacy		
Specialty	**Urban**	**Rural**	**Highly Rural**	**Urban**	**Rural**	**Highly Rural**	**Urban**	**Rural**	**Highly Rural**
Primary Care	30	30	30	30	45	60	30	40	70
Specialty Care	60	60	60	45	100	100	50-100	75-110	95-145

Sources: VA. (2019). Veteran Community Care General Information Fact Sheet; CMS. (2020).

In FY 2018 there was a negative correlation between rurality and access to specialty care; the more rural the market was, the fewer number of enrollees lived within 60 minutes of specialty care. The average percentage of FY 2018 enrollees living within 60 minutes of specialty care in rural markets was 55% versus 73% in urban markets.

In summary, it is understood that residents in rural areas are inherently spread further apart and live farther away from resources. Health care planning for basic, high-volume, low-acuity care services should acknowledge these characteristics to plan resources equitably.

Quality

VHA has incorporated total quality of care into an all-encompassing improvement operation that includes accreditation and quality assurance measures. The organization monitors its quality and performance by maintaining adverse incident databases, performing patient satisfaction surveys, conducting external peer review of records, and using external benchmarks to compare internal process and outcome rates.

There are six Integrated Clinical Communities (ICC) in VHA. These include: Primary Care, Mental Health, Surgery, Specialty Care, Diagnostics, and Rehab and Extended Care. Each ICC is required to produce a quarterly VISN report that is disseminated to their respective VISN ICC Leads to guide local quality improvement. Each report has relevant access, cost, and quality metrics by program over a four-quarter period (reflecting outcomes and trends over time). Currently, the Specialty Care ICC report only reports on quality metrics.

In addition to measuring clinical quality, VA also measures Veteran patients' hospital experience through the VA Survey of Health Experiences of Patients (SHEP) and the Dental Patient Satisfaction Survey. This is used in comparison to the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), a national, standardized survey of hospital patients. Using a quality improvement system such as

VA ICC reports, Dental Quality Indicators and VASQIP (VA's surgery quality assurance program) along with SHEP provides quantitative and qualitative data that can help to evaluate not only objective metrics of quality, but the perceptions of care from the perspective of Veterans.

Reliance

Veterans may be beneficiaries of additional insurance coverage such as Medicare or private insurance. Market Reliance, a VA metric, measures the percentage of an enrollee's total health care need that is expected to be delivered in VA facilities or through community care versus through a separate insurance or health care source.

Table 5 shows current and projected VA reliance, community reliance, and the resulting total reliance on outpatient specialty care services for FY 2018 and FY 2028. The largest forecasted increases in reliance for VA outpatient specialty care services include dermatology and ophthalmology, which are projected to increase by more than 10%. The largest forecasted increases in Community Care reliance are for nephrology and dialysis services, which are projected to increase by more than 15%. Projected increases in VA and Community Care reliance can be based on several factors including demographic shifts, demand and supply trends, and quality and access gaps. Identifying potential reliance patterns can be helpful when developing priorities and for understanding service needs at MS CBOCs and HCCs.

Table 5: *Specialty Care Reliance (FY 2018-28)*

	Total Reliance			Community Care			VA Reliance		
Description	**YR2018**	**YR2028**	**Diff**	**YR2018**	**YR2028**	**Diff**	**YR2018**	**YR2028**	**Diff**
Recreational Therapy	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Nutritional Counseling	100.0%	100.0%	0.0%	0.4%	0.6%	0.1%	99.6%	99.4%	-0.1%
Eye Glasses Services	93.6%	90.3%	-3.3%	2.0%	9.2%	7.2%	91.6%	81.1%	-10.4%
Dermatology Services and Diagnostic Exams	59.1%	75.6%	16.5%	8.6%	14.2%	5.5%	50.4%	61.4%	11.0%
Pathology	52.6%	61.4%	8.7%	3.1%	6.7%	3.6%	49.5%	54.7%	5.2%
Hearing Aid Services	47.3%	51.2%	4.0%	1.0%	1.4%	0.4%	46.3%	49.9%	3.6%
Ophthalmology Services and Diagnostic Exams	50.8%	67.3%	16.5%	5.6%	11.3%	5.6%	45.2%	56.0%	10.9%
Radiology - General	37.7%	42.7%	5.0%	4.5%	8.6%	4.1%	33.2%	34.1%	0.9%
Emergency Room Visits	39.1%	42.4%	3.4%	6.0%	7.1%	1.1%	33.1%	35.4%	2.2%
Colonoscopy	41.7%	50.3%	8.5%	8.7%	15.9%	7.2%	33.0%	34.4%	1.4%
Cardiovascular	27.2%	33.2%	6.0%	5.7%	9.9%	4.1%	21.5%	23.3%	1.8%
PT/OT/SLP	32.2%	47.1%	14.9%	15.4%	26.3%	10.9%	16.8%	20.8%	4.0%
Ambulatory Surgery - Outpatient Setting	24.5%	31.3%	6.8%	9.5%	15.5%	6.0%	15.0%	15.8%	0.8%
Radiology - Radiation Oncology	40.2%	42.4%	2.2%	26.2%	31.4%	5.1%	13.9%	11.0%	-2.9%
Nephrology – ESRD Services	33.6%	48.6%	15.0%	22.9%	38.1%	15.2%	10.6%	10.5%	-0.1%
Dialysis and Related Services	39.2%	54.4%	15.2%	31.9%	47.7%	15.8%	7.3%	6.8%	-0.5%
Allergy Immunotherapy	16.4%	27.0%	10.7%	11.3%	20.6%	9.3%	5.1%	6.4%	1.3%
Chiropractic	13.5%	23.6%	10.2%	10.6%	19.7%	9.1%	2.8%	3.9%	1.1%
Maternity	36.2%	41.8%	5.5%	36.0%	41.6%	5.6%	0.3%	0.2%	-0.1%

Note: *Table does not include Office Visits*
Source: U.S. Department of Veterans Affairs, *BY19 BAA9 Reliance Dashboard v19.0*. 2021.

Table 6 shows current and projected VA reliance, community reliance, and the resulting total reliance on dental services for FY 2018 and FY 2028. Dentistry reliance is measured differently than eligibility shown in Table 5, as dentistry reliance considers Veterans that are eligible for comprehensive dental care rather than the percentage of an enrollee's total health care need.

Table 6: *Dentistry Reliance (FY 2018-28)*

	Total Reliance			Community Care			VA Reliance		
Description	FY18	FY28	Diff	FY18	FY28	Diff	FY18	FY28	Diff
Dentistry	41.7%	65.0%	23.3%	8.4%	42.2%	33.8%	39.1%	22.8%	-16.3%

Source: Co Dental Comanaged

Productivity

The Office of Productivity, Efficiency, and Staffing (OPES) is an office inside VA's central office. [15] The primary function of OPES is to develop clinical productivity metrics and efficiency models. [16] Physician efficiency is a key productivity metric utilized by VHA. This metric is calculated by dividing the number of work relative value units (RVU) by the time allocated to clinical workload by physician. This metric is calculated at the individual level and OPES is responsible for aggregating the data to the physician type. OPES measures average productivity for 32 different physician specialties/occupations [16] and each clinical specialty has productivity standards which are unique to their respective practices. The generally accepted productivity thresholds fall between the 25th and 75th percentiles within their respective peer group. [17] The minimum productivity is calculated as follows.

Minimum Productivity Threshold = Peer Group Median productivity-(1.25*Peer Group Standard Deviation

Some factors can create variations to productivity algorithms including data quality issues and/or fundamental changes to the practice/specialty. [17] A concern for all productivity metrics is the accuracy and completeness of data gathered. Across facilities, there have been inconstant coding of clinical procedures which could skew physician efficiency. [16] Nonetheless, OPES standards can be used in planning to identify providers that may have the capacity to serve unmet demand needs in underserved areas using telehealth, and can be used to better understanding projected workload volumes.

Because workload is projected using RVUs, OPES productivity metrics can be applied to projected workload to estimate future provider needs. For example, if the median productivity of a specific specialist type is 1,000 RVUs a year, and a site (or geographic area such as a sector) has a projected demand of 4,000 RVUs for that specialty, it could be assumed that the site/ area will need approximately 4.0 full-time equivalents (FTE) of that given specialty.

VA Site Classifications and Existing Guidelines

To understand the relationship between site classifications and the services each site may provide, there are several key VHA handbook and directives to reference:

- **VHA Handbook 1006.02**, *VHA Site Classifications and Definitions*, which defines VHA points of service and major administrative terms (for example, "Administrative Parent")
- **VHA Directive 1073** (previously VHA Directive 2006-023), *Moderate Sedation by Non-Anaesthesia Providers*
- **VHA Directive 1220(1)**, *Facility Procedure Complexity Designation Requirements to Perform Invasive Procedures in Any Clinical Setting*

As of September 2020, there were 1,631 total sites including both inpatient and outpatient points of care. Of the 1,631 sites, 1,145 (70.2%) were outpatient only and MS CBOCs and HCCs accounted for 14.1% and 0.9% of all outpatient sites, respectively.

MS CBOCs

There is no definitive combination of specialties that defines an MS CBOC and MS CBOCs can range between two to 30 on-site specialties. Most MS CBOCs (75%) had six specialties delivered on-site or fewer, however, there were several larger MS CBOCs that had between seven and 25 specialties.

There were 230 MS CBOCs that had at least two specialties with greater than or equal to 500 on-site encounters in FY 2019. Most sites were in urban counties (185 sites, or 80%) and 45 sites, or 20%, were in rural counties. [*]

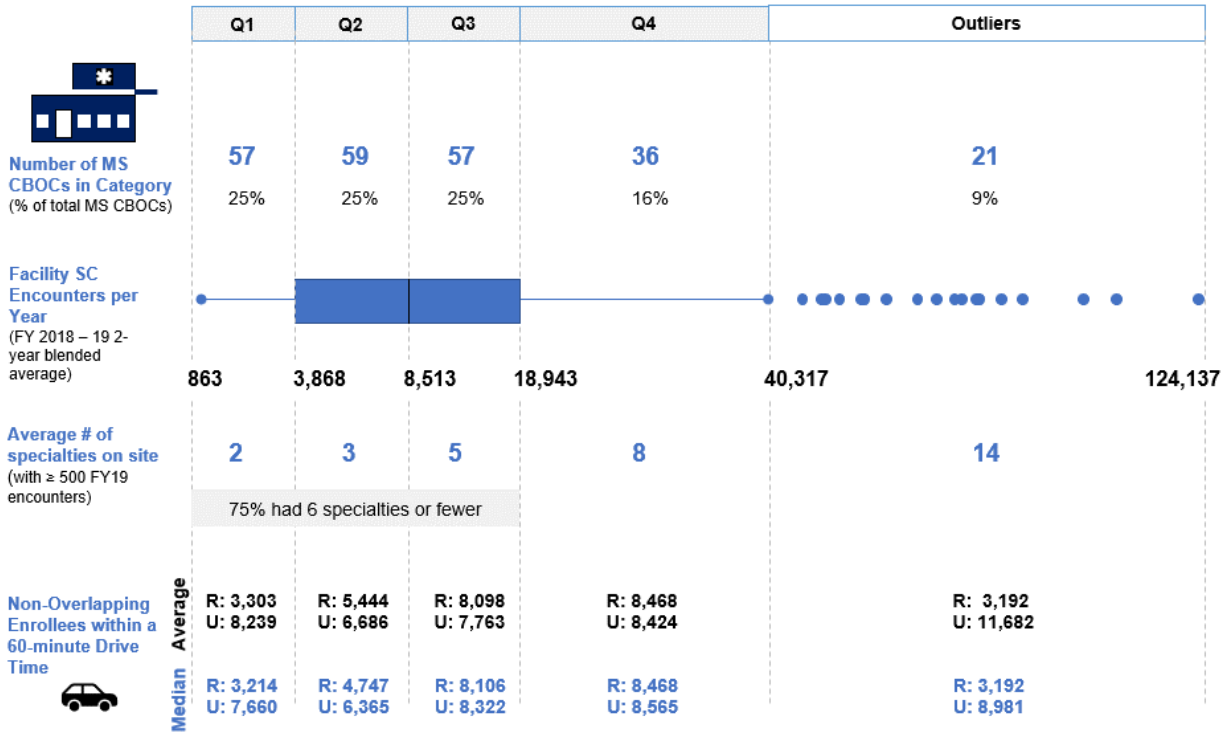
VHA Definition of an MS CBOC

A Multi-Specialty CBOC is a VA-owned, VA-leased, mobile, contract, or shared clinic that offers both primary and mental health care and two or more specialty services physically on-site. Access to additional specialty services may be offered by referral or telehealth. These clinics may offer support services, such as pharmacy, laboratory, and x-ray. The clinic may be operational from 1 to 7 days per week. These clinics are permitted to provide invasive procedures with local anesthesia or minimal sedation, but not with moderate sedation or general anesthesia (see VHA Directive 2006-023). [35]

The following figure illustrates numerous characteristics of the 230 MS CBOCs including encounter volume, number of on-site specialties, and enrollees within a 60-minute drive time. The sites were organized by quartile based on each site's 2-year blended average number of encounters. The result was five groups, the four quartiles and an outlier group.

[*] For planning purposes, geographic designations such as counties, submarkets, and markets are classified as either rural or urban based on where most enrollees live. For example, if greater than 50% of enrollees within a county live in a rural area, the county is considered a rural county. If 50% or fewer enrollees live in rural areas, the county is considered an urban county.

Figure 16: *MS CBOC Study by Encounter Volume, Number of Specialties, and Enrollee Proximity*



Sources: VAST Facility Hierarchy, Geocoded Enrollee File FY 2018 Q4 (enrollee proximity), and VSSC Encounters Cube (encounters)

HCCs

While the number of specialties is what defines an MS CBOC, the complexity level of the procedures or surgeries authorized to be performed on-site is what defines an HCC. There are two types of HCCs, an HCC with a Procedure Center and an HCC with an ASC.

VHA Definition of an HCC

An HCC is a VA-owned, VA-leased, contract, or shared clinic operated at least 5 days per week that provides primary care, mental health care, on-site specialty services, and performs ambulatory surgery and/or invasive procedures which may require moderate sedation or general anesthesia.

(1) The HCC not designated as an ASC but performing invasive procedures under moderate sedation must meet criteria established by VHA Directive 2006-023, Moderate Sedation by Non-Anesthesia Providers.

(2) The HCC designated as an ASC must meet the requirements of the assigned surgical complexity level and provide all associated support infrastructure, such as pharmacy, laboratory, and x-ray, to perform these health care services safely and effectively. ASC programs are evaluated against clinical criteria established by VHA's National Surgery Office (see VHA Directive 2011-037).

(3) The HCC either assigned an ASC designation or performing invasive procedures under moderate sedation or anesthesia must comply with external accrediting bodies' standards for ambulatory surgery centers and/or provision of anesthesia or moderate sedation.

Procedural and Surgical Services

VHA established an Invasive Procedure Complexity Model that ensures a VA medical facility's infrastructure matches the complexity of the invasive procedures performed in any clinical setting. In addition to infrastructure, each complexity designation defines the required instruments, staffing, equipment, anesthesia services, and other support services required. Two of the seven invasive procedure complexity designations are pertinent to this planning strategy, *Outpatient Basic (Bedside/Clinic/Minor Procedure)* which can be performed in MS CBOC clinics, and *Outpatient Intermediate (Moderate Sedation)* which are to be performed in HCC procedure rooms but do not require on-site anesthesia support nor need to be performed in an Ambulatory Surgery Center (ASC) operating room. See Appendix I for a matrix of procedure complexity designations to corresponding VA site classifications.

The scope of this planning strategy is limited to HCCs with outpatient procedure centers that are not designated as ASCs.

Outpatient Procedure Centers: Outpatient Intermediate procedures with moderate sedation can be performed in procedure rooms which require less infrastructure and on-site support than higher complexity designations. Colonoscopy, bronchoscopy, and upper gastrointestinal (GI) endoscopy procedures are examples of Outpatient Intermediate procedures using moderate

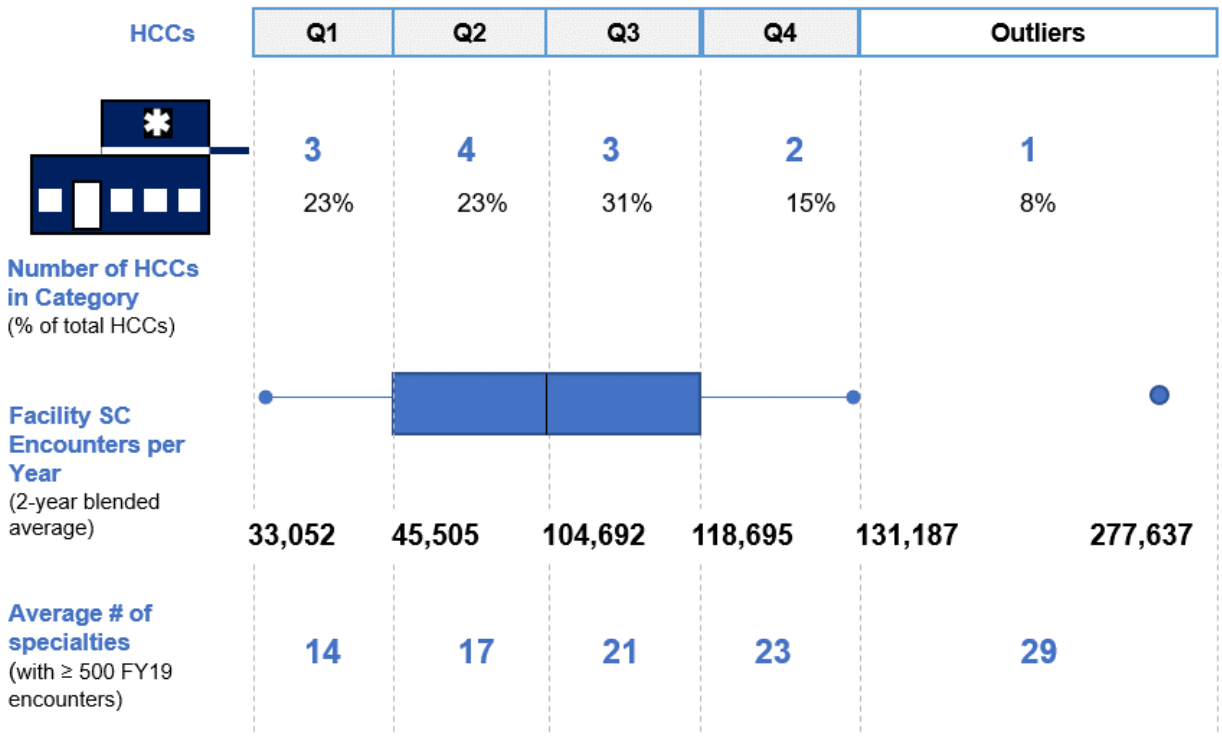
sedation. One of the major functions of an outpatient procedure center is to perform ambulatory endoscopic services and these facilities are commonly referred to as an ambulatory endoscopy center. VA endoscopists perform approximately 390,000 outpatient procedures per year (for example, colonoscopy and upper GI endoscopy). These are not surgical cases; however, when compared to total VA surgical cases for context of volume, outpatient GI procedures alone represent approximately 93% (there were approximately 421,000 VA surgical cases in FY 2019, which includes inpatient and outpatient volume).

The remaining five invasive procedure complexity designations are under the scope of the Surgery National Planning Strategy which developed planning guidelines for operating rooms. A summary of the ASC HCC planning guidelines is as follows:

- Ambulatory Surgery Centers: An ASC HCC should have a minimum of two operating rooms that can be staffed without reoccurring challenges and perform 1,000 cases per year per room. This standard is like those used by the Department of Defense, Indian Health Services, and the private sector. [18]

There were 13 HCCs in FY 2019. Most were in urban markets (10 sites, or 77%) and three, or 23%, were in rural markets. The HCCs had a range of specialties provided, the smallest HCC with 12 on-site specialties and the largest with 29. The average number of specialties delivered on-site was 19.

Figure 17: *HCC Study of Encounters and Number of Specialties*



Sources: VAST Facility Hierarchy,9/8/2020, VSSC Encounters Cube, 2019.

Clinic Design

The VA Office of Construction and Facilities Management developed the Patient Aligned Care Team (PACT) Space Module Design Guide which established space planning criteria for any VA medical facility providing primary care. The benefits of using standard design templates include efficient space programming, design development, and construction and equipment procurement. One PACT module is designed to host four PACT teamlets and adds modules and additional ancillary and specialty care spaces based on the site's number of teamlets (or primary care providers (PCP)). For example, if a site has eight PCPs (two PACT modules), then two audio testing booths are suggested to be programmed. It was reported that there is flexibility with the space planning criteria and that local Veteran demand and market conditions are also major influencing factors in the programming process. Planning for Dental should follow the Office of Dentistry's Dental Resource Model for Dental Clinic Resourcing and Dental Clinic Design Guide, separate from the PACT space planning criteria.

The PACT module template provides two exam rooms per PCP and does not suggest adding multi-specialty exam rooms until three PACT modules (12 PCPs) are authorized. Given the advancements of tele-primary care and the nature of VHA's specialty care hub and spoke care delivery system, it is important to consider the utilization of exam rooms and build for multi-purpose spaces when possible. Shared spaces support specialists rounding to clinics outside the VAMC and increases access to Veterans while building more efficient clinics.

Specialty Care and VA's Fourth Mission

VHA provides emergency management response and disaster relief in times of crisis. The 1982 VA/Department of Defense (DoD) Health Resources Sharing and Emergency Operation Act (P.L. 97-174) initiated VA's authority to provide emergency management response support. This authority was further expanded by the Federal Response Plan in 1992. The creation of these laws led to what would become VA's "Fourth Mission," which is defined as VA's effort "to improve the Nation's preparedness for response to war, terrorism, national emergencies, and natural disasters by developing plans and taking actions to ensure continued service to Veterans, as well as to support national, state, and local emergency management, public health, safety and homeland security efforts." [19]

During the COVID-19 pandemic, VA provided Fourth Mission support in many communities. This support included placing both clinical and non-clinical VA staff on-site in a community or VA facility, training in infection control measures, and providing personal protective equipment to other health care organizations. The effect of COVID-19 on specialty care services was an increase in use of telehealth services.

During FY 2020, with the expansion of the COVID-19 pandemic within the U.S., VA provided 4,863,389 synchronous and asynchronous telehealth encounters to 1,556,223

unique Veterans. This was a 175.5% increase in telehealth encounters from FY 2019, demonstrating VA's ability to expand telehealth capabilities rapidly. As of July 29, 2021, VA provided 8,617,684 telehealth encounters to 2,045,193 unique Veterans, showing VA's continued commitment to providing virtual services to meet Veteran demand during the COVID-19 pandemic. [20]

2.3 Commercial and other Federal Provider trends

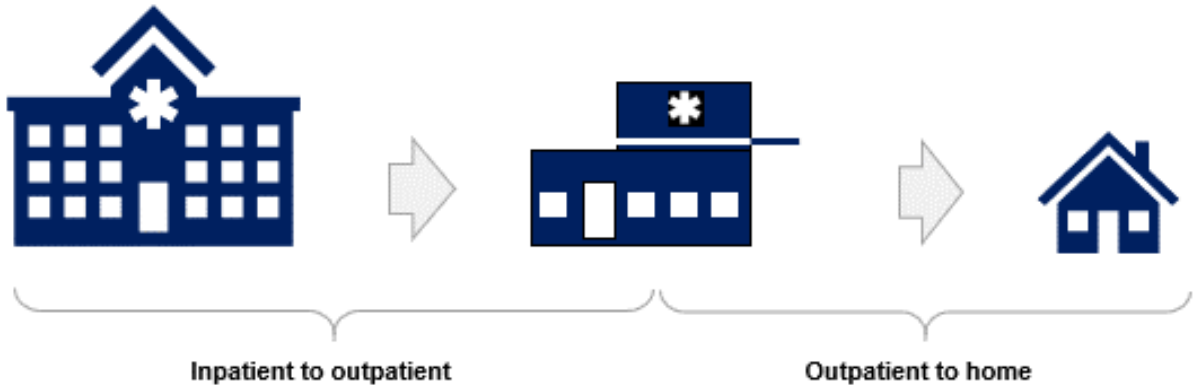
Shifts in Health Care Delivery

Advances in medicine and technology have allowed for changes to where health care is delivered. For example, shifts are observed from inpatient to outpatient settings, outpatient to the home, and new venues such as retail partners or virtual modalities.

Inpatient to Outpatient

According to the American Hospital Association, the number of hospital admissions decreased from 35 million in 2006 to 31 million in 2018, despite growth and aging of the population. During the same time period, the number of outpatient encounters more than doubled. This shift to outpatient services from inpatient is driven by technology improvements, medical advancements, and an effort to bend the cost curve toward more cost-effective and clinically appropriate sites of care.

Figure 18: *Inpatient to Outpatient to Home*



A 2015 VA facilities assessment found that between 2007 and 2014 outpatient visits increased by more than 40% and inpatient bed days decreased by 9%. Some VISNs had a decrease in inpatient bed days as great as 21% and expect an additional 50% decrease over the next 20 years. [21] Ambulatory surgery in particular is an area where volume shifted from inpatient to outpatient, and a resulting effect has been an increase in ambulatory surgery centers across commercial markets.

Outpatient to Home

Services along the continuum of care continue to see shifts in care to the home, including rehabilitation activities and hospital services (also known as “Hospital at Home”). These downstream shifts are notable to long-range planning because while it is acknowledged that having a level of physical clinic space is critical, utilization of these spaces is changing.

Telehealth

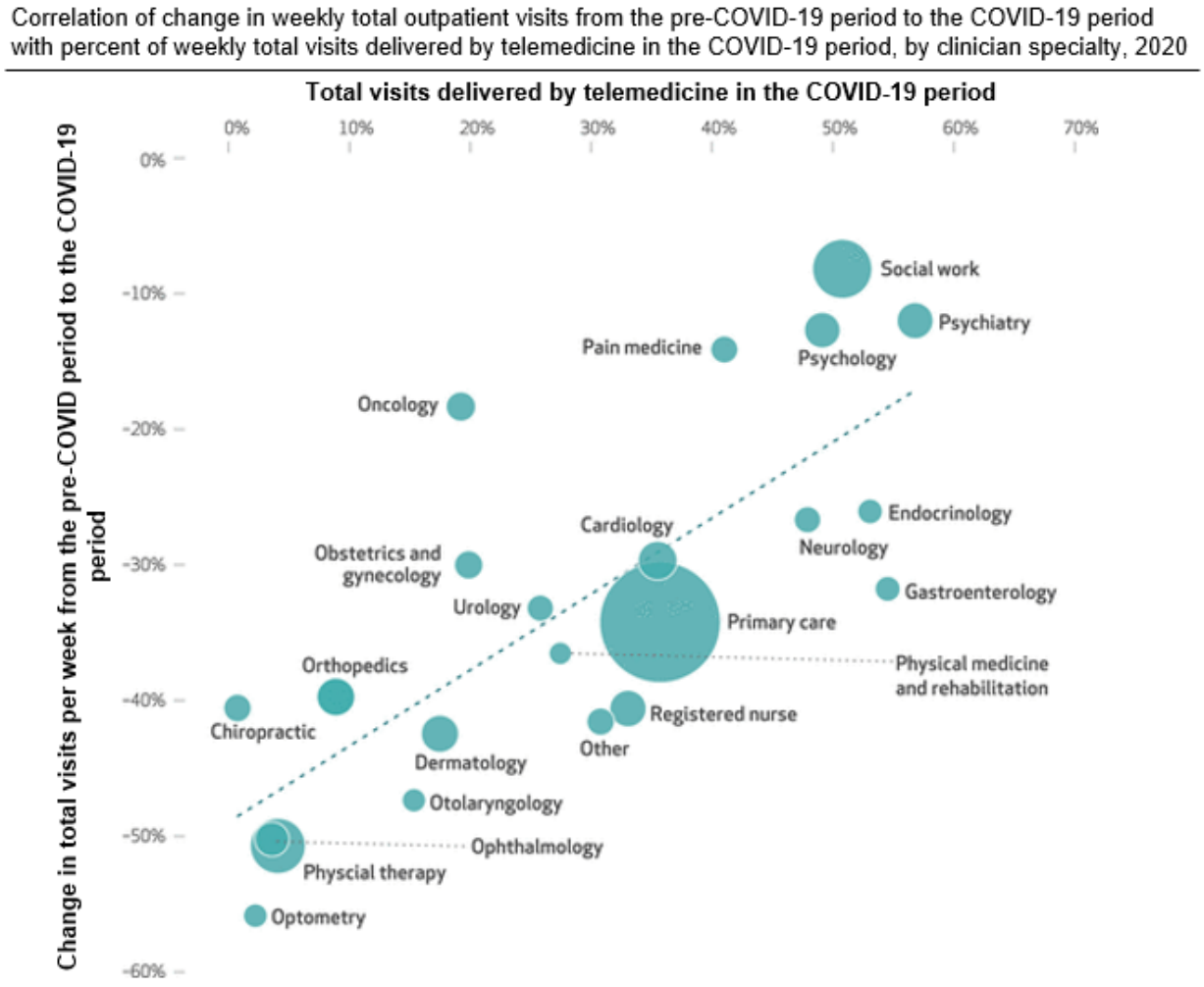
In addition to the shift to lower-acuity care settings, specialty care services continue to see shifts in care to telehealth. Specialty care services are currently available through a variety of telehealth methods including:

- Video encounters
- Sharing of digital photographs to aid in diagnosing and care planning
- Remote patient monitoring

Telehealth enables patients and providers to connect with experts anywhere to deliver high-quality care to patients with complex or urgent needs. This is particularly beneficial to specialty care, for which specialty capacity for certain programs is low in certain areas of the country.

COVID-19 has caused an increased usage in Telehealth, new research suggests that some of the increased usage will likely continue. [22] The pandemic ultimately caused payers and providers to change policies to encourage continued services, such as changes to telehealth encounter reimbursement and cross-state provider privileging. These trends have allowed certain specialties to promote these services. During COVID-19, 67.7% of endocrinologists, 57% of gastroenterologists, 56% of neurologists, and 50% of pain management specialists used telehealth at least one time in the U.S.. [23] While the permanence of the shift is not guaranteed, research suggests that long term replacement of some in-person care with virtual care is more likely in specialties where the percent of visits delivered virtually during COVID-19 exceeded the change in total visits per week during the same period (for example, in mental health services, endocrinology, neurology, and pain medicine, as seen in the figure below).

Figure 19: *Changes to Commercial Telehealth Utilization by Service due to COVID-19*



Further exploration of cost savings and other benefits telehealth can provide are possible due to the acceleration of its utilization. The implication for VA is that specialty capacity (especially for certain programs) could be added at one location and exported via telehealth. The use of telehealth can be an opportunity to increase access to care for Veterans, add flexibility in planning, and provide cost savings.

Retail and Convenient Care

Today's customers demand convenience. In the past, health care was not subject to consumer demands, however, that is no longer the case. Advancements in technology and megamergers have changed consumerism across many industries (for example, Cigna and Express Scripts, and CVS and Aetna in health care, and Amazon and Whole Foods in retail). Outside of mergers, major retailers such as Costco and Wal-Mart are also expanding their optometry, optical, and audiology/hearing aid businesses.

Working with The American Legion, Veterans of Foreign Wars, Philips, Walmart, and other public and private partners, VA developed the Accessing Telehealth Through Local Area Stations (ATLAS) program. ATLAS sites are telehealth posts designed to bring convenient telehealth services to Veterans in rural communities by providing a private space in an accessible location equipped with technology for video conferencing with VA providers.

With all these different factors and initiatives, the takeaway for VA specialty care planning is the shift in overall consumer behavior that expects convenience and care closer to home.

Specialties and Planning

As shown in the graphic below, sophisticated approaches to provider planning in a commercial setting rely on the notion that there are a number of ambulatory encounters in each specialty that can be attenuated by age, payor, geography, gender and other factors. The average number of encounters that each provider can see in a year is then divided into the total number of projected encounters to determine the number of providers needed in a particular geographic market.

As mentioned previously, age (as well as other factors) is particularly relevant to VA planning assumptions considering people over age 65 use three times more health care as those under age 65 and approximately 50% of all enrollees are over age 65. In comparison, approximately 17% of the overall U.S. population is over age 65.

Another method that commercial health care entities use to triangulate the need for providers is to examine the number of providers needed for a specific population. This approach takes the number of providers in a particular specialty across the country divided by the nation's population to develop a provider per 100,000 people rate. These rates for select specialties are summarized and sourced in Appendix F.

In addition to the above, a complementary method of long-range capital planning takes projected encounter demand and divides it by the number of encounters an exam room can host in a year to calculate the estimated total exam room demand. As telehealth and resource sharing continues to improve, calculating actual capital requirements versus using rooms per provider may lower the capital requirements and offer a more efficient and cost-effective way of planning investments.

Other Federal Providers

The Military Health System (MHS) is one of the largest integrated health care systems in the United States and is responsible for providing ambulatory health care services through direct care and private sector purchased care to approximately 9.6 million beneficiaries, including active-duty personnel, military retirees, and family members. MHS does not have free-standing clinics and the majority of ambulatory military care is provided on a military base. [24] While VHA and MHS' missions and care delivery methods differ, both systems are faced with similar challenges influenced by trends in demand and supply, access, and quality. Best practices can be gleaned from MHS' use of partnerships and training of specialists. [25] A summary of some of MHS best practices is in Section 3.

3. Leading Practices

Preventative Care

Preventative screenings are essential specialty care services that help prevent or detect diseases, most notably cancer, as early detection is highly correlated with favorable survival rates. Major screening services include:

- Colonoscopy for colorectal cancer;
- Mammography for breast cancer;
- CT for lung cancer;
- Bone density scans for osteoporosis, and;
- Papanicolaou test for cervical cancer.

There are multiple reputable sources that set the recommendations for the age and frequency of screenings. The United States Preventive Services Task Force (USPSTF), American College of Radiology (ACR), and American Cancer Society (ACS) are the prominent bodies that set standards. While these sources vary slightly in their recommendations, they are all in agreement on the importance of regular screening. USPSTF works to improve the health of the nation and reports to congress annually on prevention priorities.

"The cancer death rate has fallen continuously from its peak in 1991 through 2018, for a total decline of 31%, because of reductions in smoking and improvements in early detection and treatment." [38]

The largest growing Veteran population by percentage is women, and in the United States a woman's lifetime risk of developing breast cancer is 12%. [26] Women's Health services such as gynecology are under the scope of the Women's Health National Planning Strategy, separate from this report.

Lung cancer is the leading cause of cancer deaths in the U.S. [27] A VA leading practice for lung health reported by leadership is the use of a pulmonology hub-and-spoke model where pulmonologists based out of the VAMC round to MS CBOCs within the service area, or remotely support CBOC and MS CBOC staff deliver pulmonary care using telehealth. Additionally, hiring and leveraging respiratory therapists at the top of their license at outpatient clinics is an additional way VA is extending access to lung testing, rehabilitation, and treatment in hard-to-hire areas.

Value Based Care

Value-based care was first introduced into the health care discourse in October 2007 by the Institute for Healthcare Improvement (IHI). The IHI launched an initiative called Triple Aim that challenges health systems to simultaneously improve the health of a population, improve the experience of care, and lower the cost of care. Over the years,

value-based care has taken many different forms. The three most impactful forms due to their successes in achieving Triple Aim are:

- Medicare Advantage
- Managed Medicaid
- The Bundled Payment for Care Initiative (BPCI)

These three programs have been able to build networks of care that improve outcomes at a lower relative cost. These initiatives have focused on providing care in the lowest cost, most available care setting by moving care centers closer to where patients live. In this model, there is a geographic distribution of care which shifts certain procedures to lower acuity settings. This has accelerated value-based care, evidenced by the decreasing the need for hospitalization by 12.5% in managed populations. [28]

Figure 20: Triple Aim Metrics and Medicare Population-Wide Trend

IHI's Triple Aim Metrics	Medicare Population-Wide Trend (2007-2018)
MA Enrolled Lives	11M to 24M Americans covered [29]
Enrollment Weighted Stars Average	3.18 to 4.07 [30]
Hospital Days/1,000	2,122 to 1,856 [28]
Year-over-Year Premiums	40% decrease (2010-2020) [31]
Average Beneficiary Monthly Premium	$44 to $25(KFF,2010-2020) [32]

Value-based care has also evolved with the emergence of the “Payvider” model. “Payvider” is the innovative collaboration between payors and providers that targets delivering cost-effective, consumer-centric care. [33] This trend in the commercial health space is further evidence of the acceleration of value-based care.

Referral Networks

There are three important best practices with respect to the creation of commercial referral networks. These practices are referral management, network development, and academic/state partnerships. All three are relevant to VHA, as it continues to evolve as both a provider and payer.

- Referral management: Commercial health systems have made significant investment in improving network fidelity (patients remaining in one network of care), to take advantage of the care coordination required to improve outcomes and reduce cost. Care coordination in these instances is facilitated using a common medical record that captures information on the totality of health care activities for an individual patient.
- Network development: Commercial health systems have also made significant investment in the creation of care networks to facilitate care among their patient

populations. More specifically, best practices would indicate a blend of employment and partnerships with independent physicians. Moreover, the economics of these partnerships with independent physicians are increasingly based on the achievement of improved quality, patient satisfaction, and a lower cost of care.

- Academic and State partnering to create networks: Strong partnerships continue to grow between state and academic providers. From an economic perspective this helps academics to fill unused capacity and support key teaching relationships.

Referring Veterans to existing resources across the enterprise will become increasingly possible as VA continues the roll-out of Cerner as a single medical record system and with the continued development of the CCN. Some VA services, such as Blind Rehabilitation, have designed referral pathways across all 18 VISNs. Other services that lend themselves to tele-medicine or are low in demand may have the opportunity to create similar, cross-VISN networks. Additionally, VA has relationships with academic affiliates and other Federal providers across the country, which provides other opportunities for large-scale network development.

Satisfaction and Quality

As referenced in Section 2.3, VHA and MHS' care delivery settings differ, however, both systems are faced with similar challenges influenced by trends in demand and supply, access, and quality. Leading practices can be gleaned from MHS' use of partnerships and training of specialists to stay proactive with their patient populations for ambulatory care. [25] Currently, MHS overall demand for ambulatory care is declining, as encounters and RVUs for direct care decreased by approximately 8% between FY 2017 and FY 2019. During the same time period, MHS encounters and RVUs for purchased care increased by approximately 2.5% and 5.4%, respectively. MHS leverages Federal and commercial partnerships and continuous training for specialists to ensure they are providing value in ambulatory settings by maximizing access and quality for beneficiaries:

- MHS partnered with community providers to create the Joint Outpatient Experience Survey-CAHPS (JOES-C) to measure quality of ambulatory care at both military and private sector facilities. The survey allows MHS to monitor and control quality of ambulatory care by comparing private sector benchmarks and MHS beneficiary ratings across direct and purchased care venues.
- MHS created a joint program called Clinical Quality Improvement (CQI) with VA to leverage clinical and epidemiological findings to improve health care quality for populations across VHA and MHS. CQI provides tool kits for continuous learning to both clinicians and patients. Tool kits consist of training modules and platforms used by MHS and VHA for patients with (but not limited to) hypertension, osteoarthritis, and obesity.

- In FY 2018, MHS began optimization efforts for specialty care access and capacity based on leading practices from commercial providers and high-performing Military Treatment Facilities (MTF). MHS continues to implement leading practices to centralize and streamline ambulatory specialty care appointments and referral review processes. This is allowing patients to accept referrals in the MTF or defer to TRICARE community network before they leave the MTF or within two business days of the decision to accept the referral. [25]
- Based on DoD Instruction 6000.19, MHS requires military-civilian training partnerships when skills cannot be maintained within MHS facilities. When workload is insufficient to meet requirements, MHS identifies alternative training practice sites for uniformed medical and dental personnel and establishes military-civilian training partnerships to provide respective workload.

VA Innovative Delivery Models

Federal Partnerships

There is a spectrum of existing partnerships between VA and MHS for health care services from leasing operating rooms and clinic space, to a fully integrated Federal health care center.

The Honolulu VAMC in Hawaii is an example of VA occupying space within a host hospital, a partnership sometimes referred to as a hospital-within-a-hospital, or HwH. The Honolulu VAMC is co-located with Tripler Army Medical Center, a full-service academic medical center. The current sharing agreement allows dual-credentialed attending physicians to rotate between the two facilities to provide inpatient mental health services.

The Lovell Federal Health Care Center in North Chicago, Illinois, is a first-of-its-kind partnership between VA and the DoD, integrating operational readiness and Veteran health care services in a shared facility with integrated services, providers, and care. Unlike the HwH model where both hospital entities remain separate and operate under their respective management, this is an integrated organization with shared leadership and operational directives. As the Veteran and military population changes in the future, there may be opportunities to develop similar models in other markets.

Dialysis

Best practices for expanding access for dialysis services include the adoption of VA, MHS, and community partnerships, alternate VA spaces, and virtual care models.

VA utilizes existing joint ventures with MHS facilities to dual credential providers for dialysis care at Lovell Federal Medical Center, Tripler Army Medical Center, Travis Air Force Base, and Womack Army Medical Center. For community partnerships, VA established national dialysis service contracts for care in the community dialysis (CITC). Section 2.2 references examples where VA leverages alternate spaces for dialysis care between VA facilities, such as the Pittsburgh VAMC CLC delivering home dialysis care

for the VA Pittsburgh Health Care System [34]. The partnerships between VA facilities and MHS or community providers support increased dialysis coverage and prevents Veterans from traveling long distances for dialysis care.

The increased adoption in virtual VA nephrology care is expanding access and providing medical oversight for dialysis care across VISNs. Examples of virtual care adoption include VISN 1 Clinical Resource Hub and Tele-Critical Care Nephrology at Cincinnati, Baltimore, and Clarksburg VAMCs [13].

4. Service Planning Framework

4.1 Specialty Care Planning Priorities

The priority when planning specialty care is to provide a continuum of high-quality, accessible specialty services by leveraging VA assets to their maximum capacity – including facilities, providers and care team staff, technology, and Federal and academic affiliate partnerships – to best serve Veteran needs.

4.2 Geographic Service Area

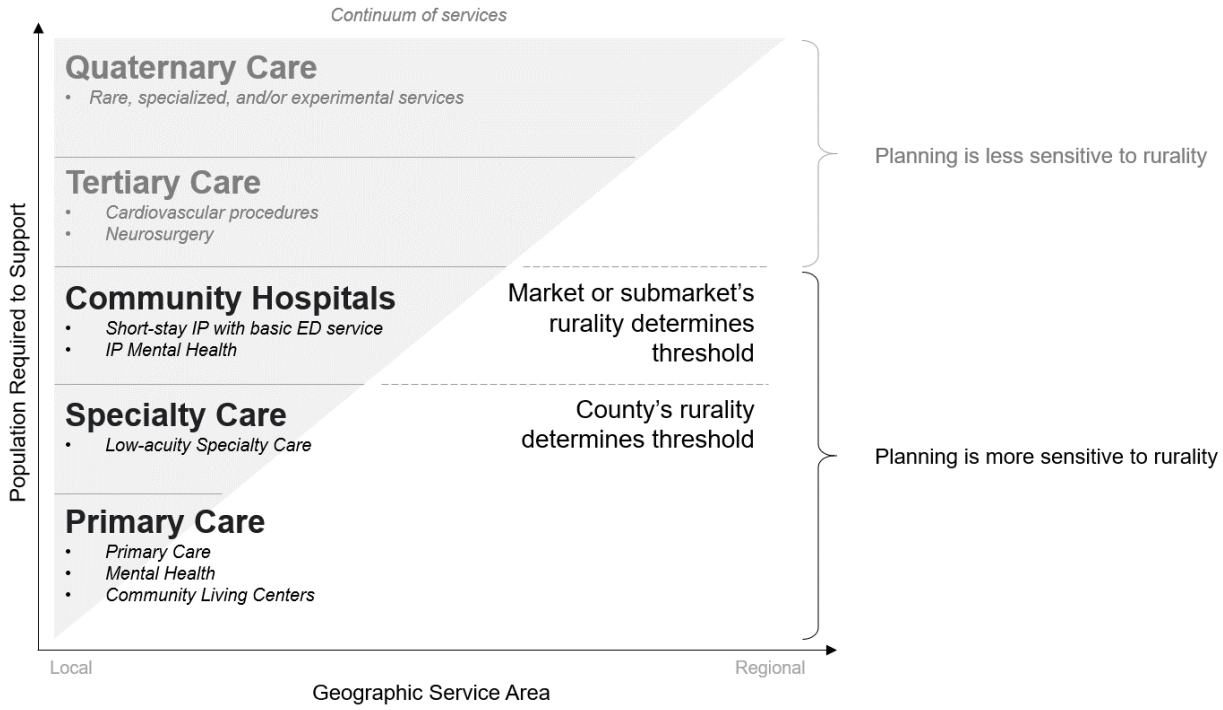
Considering rurality in health care planning

Tertiary, quaternary, and other specialized services are typically established in urban areas that have the population and provider resources to support them. Therefore, not all services were considered for separate urban and rural planning guidelines. More commonly utilized services such as primary care, low-acuity specialty care, urgent care, and community living centers, which serve smaller geographic areas and have shorter drive time expectations, should consider rurality when planning for service delivery to different geographies.

As such, the Specialty Care National Planning Strategy developed unique rural planning guidelines for high-volume, low-acuity specialty care services, which are associated with the smallest, most common MS CBOC type. These are services that are in the highest demand and feasibly delivered at a local community level.

A special study was performed to understand the impacts of rurality on VA dental eligibility, given its unique eligibility criteria. In FY 2019, 27% of dental eligibles lived in rural counties while 73% lived in urban counties. Using a correlation matrix found in Appendix H, rurality was found to be statistically insignificant on dental eligibility and on dental market share. The dental market share was slightly negatively correlated to the market's percent rural, while the ratio of market dental eligibles to total market enrollees was non-correlated. The main finding of the correlation study was that the market rurality is not related to the concentration of dental eligibles in a given market. The insignificant findings signal that separate rural and urban planning guidelines are not needed for dental planning.

Figure 21: *Population required to support Service Types by Geographic Service Area*



MS CBOC Tiers

MS CBOCs are organized into three tiers – small, medium, and large – and each tier consists of two components:

1. The quantity of specialties providing regular coverage on-site
2. A list of suggested specialties that are likely to be in demand

Each tier's list of specialties is inclusive of the previous tier's, creating a larger menu of specialties as the tiers move up in scale. The specialties assigned to each tier were influenced by historical national encounter demand; the specialties with the most volume suggested in the smallest MS CBOC, and the specialties with less volume reserved for larger MS CBOCs.

The specialties are suggested and are not prescriptive. Local Veteran needs and disease prevalence, academic affiliations, preventative care goals, and ability to staff should all be considered when performing local-level planning. Additionally, some services such as dental and dialysis have unique populations for planning (versus using market enrollees) and have existing VA planning guidelines. Planners should coordinate with the respective program offices to plan these services.

Small MS CBOC

2-3 On-Site Specialties

- Optometry

- Audiology
- Physical Therapy

Medium MS CBOC

4-5 On-Site Specialties
Primary considerations:

- Podiatry
- Critical Care/ Pulmonology

Secondary considerations:

- Dermatology
- Cardiology
- Ophthalmology

Large MS CBOC

6-8 On-Site Specialties

- Dental*
- Orthopedics
- Urology
- Endocrinology
- Surgery
- Gastroenterology

HCCs

While the number of specialties is what defines an MS CBOC, the complexity level of the procedures or surgeries authorized to be performed on-site is what defines an HCC. There are two types of HCCs, an HCC with a procedure center and an HCC with an ASC. Of the two types of HCCs, HCCs with procedure centers, or non-ASC HCCs, are in scope for this planning strategy.

Tier One – Procedure Center HCC

Invasive Procedure Complexity Level: Outpatient Intermediate
Procedure Venue: Procedure rooms only. Operating rooms not required.
9-23 On-Site Specialties
Primary considerations:

- Shared procedure rooms for Gastroenterology and Endoscopy (for example, upper GI and colonoscopy procedures by GI; other endoscopy procedures may be performed by Urology, Gynecology, or Pulmonology).

Additional considerations:

* Planning should be performed in partnership with the respective program office to leverage their existing make-buy planning tools.

- Nephrology, Dialysis Clinic*

Tier Two – HCC with ASC

Invasive Procedure Complexity Level: Outpatient Intermediate, APC Basic, APC Advanced
Procedure Venue: Procedure rooms and operating rooms
Primary considerations:

- General Surgery
- Ophthalmology
- Orthopedic Surgery
- Urology

4.3 Planning Guidelines and Thresholds

Planning guidelines and thresholds seek to inform the market assessment process. The rationale for establishing VA planning guidelines and thresholds is rooted in the belief that where a VA service falls below the identified measure, quality, patient safety, or operational efficiency may be compromised. Therefore, a service must be carefully examined to ensure that Veteran needs are appropriately met. Planning guidelines and thresholds focus on a broad range of access, demand, staffing, quality, and facilities/ environment of care considerations and are meant to help identify areas where the teams should carefully consider measurable performance indicators. The guidelines and thresholds developed are not meant as standalone decision criteria to be used to make specific recommendations.

When conducting the market assessments, the opportunities developed were standardized across a range of move (or strategic task) types. Those developed included major moves as well as opportunities defined to be addressed during the ordinary course of business. Major moves represent the platform which will be vetted with senior VA leadership, with the VHA Under Secretary of Health, the Secretary of VA, the Asset and Infrastructure Review (AIR) Commission, and ultimately with Congress.

Planning guidelines derived from these efforts have been designed to assist in the standardization of major market moves and include the following:†

- **Open:** Establish a new site or program in an area with no current services
- **Maintain**
  - **Maintain:** No major move is recommended
  - **Resize:** Maintain services at the current site and size appropriately to accommodate projected demand

* Planning should be performed in partnership with the respective program office to leverage their existing make-buy planning tools.
† All National Planning Strategy service planning guidelines may not include all major market move types.

  - **Relocate Program:** Maintain services within the same geographic service area but relocate to another VA site
  - **Relocate Facility:** Maintain services and relocate the site within the same county to better place services closer to where Veterans live or to a site that can better fit services
  - **Modernize Facility:** Update environment of care by improving or adding new building systems without changing the function of the existing space
  - **Replace Facility:** Applicable for sites or standalone programs – maintain services within the same area in a new facility due to the current facility's inability to modernize efficiently
- **Partner:** Create a partnership where VA providers deliver care in coordination with a partner or where VA transitions care to a partner
  - **Partner (VA Delivered):** A partnership in which VA providers deliver care to Veterans in coordination with a partner, such as through a VA hospital within a hospital (HwH) on a partner hospital campus, credentialing VA providers within a partner facility, or establishing a VA point of care within a partner space
  - **Partner (CCN/AA/Federal):** Transition care from a VA site and from VA providers to the Community Care Network, an Academic Affiliate, or to Federal providers and facilities; VA provides care coordination but does not deliver clinical care

Planning Guidelines Table

MS CBOC

The below table outlines the planning guidelines by move. The details of the planning guideline methodology and rationale are described after the tables. When using the guidelines, always leverage the most current 10-year projection model.

MAHSO Planning Guidelines and Thresholds	
Service	Ambulatory specialty care services in MS CBOCs
Geography	Local (Small MS CBOC) and Market (Medium and Large MS CBOCs)
Prerequisites	Must meet CBOC guidelines and be able to support on-site Primary Care and Mental Health

Open		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	**Small MS CBOC:** • **Rural county:** 10-year projected enrollees of 4,300 within a 60-minute drive time or a minimum of 2 FTEs' equivalent projected RVUs per Small MS CBOC tier specialty. • **Urban county:** 10-year projected enrollees of 5,400 within a 60-minute drive time or minimum of 2 FTEs' equivalent projected RVUs per Small MS CBOC tier specialty. **Medium MS CBOC:** • 10-year projected enrollees of 7,700 within a 60-minute drive time. **Large MS CBOC:** • 10-year projected enrollees of 8,400 within a 60-minute drive time. • Medium and Large MS CBOCs to have projected 2.0 FTEs' equivalent RVUs of a specialty within its respective VA health care system (parent station service area) to build specialty-specific spaces. **Universal demand guidelines:** • A nearby VAMC, HCC, or other MS CBOC's projected demand exceeds its built capacity and decanting specialty services to a new MS CBOC or existing CBOC is more favorable than expanding the existing site.	**Small MS CBOC:** ○ **Rural county:** The median FY 2018 enrollee population within a 60-minute drive time of MS CBOCs in rural counties was 4,337. ○ **Urban county:** The average FY 2018 enrollees within a 60-minute drive time of the 2nd quartile rural MS CBOCs averaging 3 on-site specialties was 5,444. The rural average was lower than the urban average in this quartile and was chosen as the guideline to increase access. ○ The small MS CBOC tier specialties are the most in-demand. The guideline to have a minimum of 2 FTEs' equivalent demand to invest in opening a new MS CBOC or expand a CBOC by building specialty-specific space, is to support adequate coverage of these high-demand services and ensure utilization of a new asset. Medium and Large MS CBOC specialties have less demand and resources will likely provide coverage for multiple VA sites throughout the VA health care system (service area). • **Medium MS CBOCs:** 10-year projected enrollees of 7,700 was influenced by the average enrollees within 60 minutes of an urban 3rd quartile MS CBOC averaging 5 on-site specialties, which had 7,763 enrollees within 60 minutes. • **Large MS CBOC:** 10-year projected enrollees of 8,400 was influenced by the average urban 4th quartile MS CBOCs averaging 8 on-site specialties, which had 8,424 enrollees within 60 minutes. • Medium and Large MS CBOC's VA health care system to have projected 2.0 FTEs' equivalent RVUs of a specialty to build specialty-specific spaces at the MS CBOC to support utilization of space and to avoid one-provider service lines, supporting better access for Veterans.

Open		
Planning Domain	**Planning Guideline**	**Rationale**
Supply	• **Small MS CBOC -** *Provides 2-3 on-site specialties* • **Medium MS CBOC –** *Provides 4-5 on-site specialties* • **Large MS CBOC -** *Provides 6-8 on-site specialties* • **Universal supply guidelines:** ○ Site has ability to staff planned specialties; no reoccurring recruitment nor retention challenges within the market ○ Use projected on-site workload to estimate number of exam rooms. Favor shared, multi-specialty rooms over department-specific rooms when possible.	• **Small MS CBOC:** ○ A minimum of 2 specialties is from the VHA Site Classification handbook. The guideline to plan for 2-3 on-site specialties was influenced from the average number of specialties in the 1st and 2nd quartiles which were 2 and 3 respectively. Together the lower two quartiles represent approximately 50% of all MS CBOCs. Additionally, the small MS CBOC tier specialties represented approximately 64% of all specialty encounters occurring in MS CBOCs. • **Medium MS CBOCs:** ○ Providing 4-5 on-site specialties is influenced from the average number of specialties in the 3rd quartile MS CBOCs, which was 5 specialties. • **Large MS CBOC:** ○ Providing 6-8 on-site specialties is driven from the average number of specialties in the 4th quartile MS CBOCs, which was 8 specialties.
Access	• Proposed location is in an enrollee-dense area (relative to surrounding counties) with the ability to capture the greatest number of enrollees within a 60-minute drive time. • **Large MS CBOCs:** Proposed location with surgical specialties is within a 60-90-minute drive time to surgery centers (VAMCs, HCCs, or Partner-VA Delivered surgery).	• VA current access standard is a 60-minute average drive time for secondary care. • Enrollee-dense areas provide access to the most Veterans. • Locations within 60-90 minutes of surgery centers support recruiting and retaining surgical specialty providers that require or prefer to perform surgeries. Patient and provider can leverage nearby procedure/surgery spaces as needed.
Quality	Refer to SCPO ICC relevant quality metrics per specialty.	

Maintain: Resize, Relocate, or Modernize		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	• Same as Open or • Site had at least 2 specialties with >500 encounters in previous year and meets CBOC guidelines.	Existing VHA Site Classification guidelines.
Supply	Same as Open	
Access	Same as Open	
Quality	Refer to SCPO ICC relevant quality metrics per specialty.	
Other	**Resize** The projected demand meets the Maintain guidelines, however, the existing space's projected occupancy is less than 50% or is more than 100% and resizing in place (either decreasing or expanding) is a more favorable option than relocating (for accessibility or financially). **Relocate** The projected demand meets the Maintain guideline, however, another location would improve access or be a more efficient use of VA assets (consolidation): • There is a VA point of care with capacity within 30 minutes of existing location.	**Resize** The current site is unable to accommodate projected demand efficiently. **Relocate** Current site is less favorable for either access, environment of care, or efficient use of VA resources than another viable option. Being within 30 minutes of existing site supports maintaining 30 minute access for those that use site for primary care.

Partner – AA / Federal / CCN (Buy)		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	• The site's specialty care demand cannot be met by its VA health care system providers (parent and children stations) nor met leveraging telehealth resources.	• Quality partners should be leveraged to provide in-person care when local VA providers are not available.
Supply	• An academic affiliate, Federal provider, or community provider vetted by CCN TPA High-Performing Provider quality guidelines.	• Leverage quality resources within the community to provide services to Veterans.

Partner – AA / Federal / CCN (Buy)		
Planning Domain	**Planning Guideline**	**Rationale**
Access	• An academic affiliate, Federal provider, or community provider within a 60-minute drive time of the VA site or an enrollee-dense area.	• VA standard is a 60-minute average drive time for secondary care.
Quality	Providers are vetted by CCN third party administrators for CCN High-Performing Provider qualifications prior to entering the network.	

HCC with Procedure Center

MAHSO Planning Guidelines and Thresholds	
Service	Outpatient Intermediate procedures using moderate sedation and on-site specialty care services
Geography	Market or submarket
Prerequisites	Must meet MS CBOC guidelines and be able to support on-site Primary Care, Mental Health, and Specialty Care, and is authorized to perform Outpatient Intermediate complexity-level procedures.

Open		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	• **Rural market or submarket**: Procedures along with surgical cases are included in the scope of rural HCC Tier 2 (HCC w/ ASC) guidelines from the MAHSO Surgery National Planning Strategy; therefore, rural market's surgical and procedural planning needs to be done holistically. If no surgical cases are authorized at a site, the site should have a 10-year projected procedures per year of ≥3,200 for two shared rooms (GI, Endo, Urology, or others). • **Urban market:** 10-year projected enrollees within a 60-minute drive time is ≥ 34,720 or projected procedures per year is ≥3,200 for two shared rooms (GI, Endo, Urology, or others).	• Procedure room throughput benchmark assumes 60-minute procedures, 240 days a year operating at 85% utilization. This is similar to DoD, IHS, and private sector guidelines. • Demand for a minimum of two rooms to build a new procedure center is suggested in order to have higher confidence asset will be efficiently utilized. • The enrollee proximity guideline of 34,720 enrollees within a 60-minute drive time was developed by the Surgery National Planning Strategy and was derived from an FY 2015-19 in-house VA utilization study.

Open		
Planning Domain	**Planning Guideline**	**Rationale**
Supply	• Minimum of two procedure rooms. • Ability to staff (2.0 FTEs within the VA health care system that will round to site).	• Building a minimum two-room procedure center is suggested for net new centers to support more efficient investments with lower risk of low utilization. • The threshold for the ability to staff 2.0 providers per specialty prevents programs with one provider and inconsistent coverage within the VA health care system.
Access	• Proposed location is in an enrollee-dense area (relative to surrounding counties) with the ability to capture the greatest number of enrollees within a 60-minute drive time.	• VA current access standard is a 60-minute average drive time for specialty care.
Quality	Refer to SCPO ICC relevant quality metrics per specialty. HCCs must comply with external accrediting bodies' standards for ambulatory surgery centers and/or provision of anesthesia or moderate sedation.	

Maintain – Resize, Relocate, Modernize		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	• Minimum projected procedures per year is ≥1,600.	• Assumes 60-minute procedures, 240 days a year, operating at 85% utilization. This is similar to DoD, IHS, and private sector procedure center benchmarks.
Supply	• Minimum of one procedure room. **Resize**: Reduce the number of activated/operational rooms to 1,600 procedures per room.	• If procedure centers are built and operational, guideline to have a minimum of one room supports continuous service and use of existing assets. • Resizing aligns operating costs to procedure demand.

Maintain – Resize, Relocate, Modernize		
Planning Domain	**Planning Guideline**	**Rationale**
Access	• Proposed location is in an enrollee-dense area (relative to surrounding counties) with the ability to capture the greatest number of enrollees within a 60-minute drive time. **Relocate**: the proposed new site can maintain or increase the number of projected enrollees within 60 minutes of the existing site.	• Ensures that access to the same services are maintained or improved. **Relocate**: Current site is less favorable for either access, environment of care, or efficient use of VA resources (financially) than another viable option.
Quality	Refer to SCPO ICC relevant quality metrics per specialty. HCCs must comply with external accrediting bodies' standards for ambulatory surgery centers and/or provision of anesthesia or moderate sedation.	
Other	**Modernize:** Infrastructure that does not adhere to current standards of safety or security should be modernized following VA design guidelines.	

Partner – VA Delivered		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	Procedures per year do not meet minimum service area requirements for maintain active procedure center: • Fewer than 1,600 procedures per year	A procedure room that is shared across multiple services but not fully utilized creates inefficient use of required supporting services' resources.
Supply	There are no quality providers within 60-minutes of the site, but VA has existing providers that can perform high-quality procedures.	If there are no quality providers (CMS 3+ Star) within 60-minutes, leveraging a partner's procedure space using VA-Delivered care (VA providers) is an efficient, high-quality solution to low-demand procedures with no quality options in the community.
Access	The partner site is willing to provide procedure room time without exceeding 85% total procedure center occupancy, is a facility that has TJC accreditation, and is within 60 minutes of the current site, or in an enrollee-dense area (relative to surrounding counties) with the ability to capture the greatest number of enrollees within a 60-minute drive time.	Not exceeding 85% of total procedure center occupancy supports access to procedure rooms in a safe and timely manner. Eighty-five percent utilization of a room is common across DoD, IHS, and commercial providers, providing time for room and equipment maintenance, which is being leveraged here for total procedure center occupancy.

Partner – VA Delivered		
Planning Domain	**Planning Guideline**	**Rationale**
Quality	For VA provider: Refer to SCPO ICC relevant quality metrics per specialty. For venue: CMS 3+ Stars, TJC accredited.	

Partner – AA / Federal / CCN (Buy)		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	The site's specialty care demand cannot be met by its VA health care system providers (parent and children stations) nor met leveraging telehealth resources.	Quality partners should be leveraged to provide in-person care when local VA providers are not available.
Supply	An academic affiliate, Federal provider, or community provider vetted by CCN TPA quality guidelines.	Leverage quality resources within the community to provide services to Veterans when necessary.
Access	• An academic affiliate, Federal provider, or community provider is in an enrollee-dense area (relative to surrounding areas) with capacity to provide quality care. • The future (10-year) outpatient specialty RVUs being generated at the facility can be absorbed within quality partners (CMS 3+ Stars or NCQA accredited health plan) within 60 minutes of the location without exceeding 85% of total CCN capacity.	• This guideline signals the availability of outpatient specialty services in the community that can accommodate future Veteran demand.
Quality	CMS 3+ Stars, TJC accredited.	

Detailed Planning Guidelines Rationale

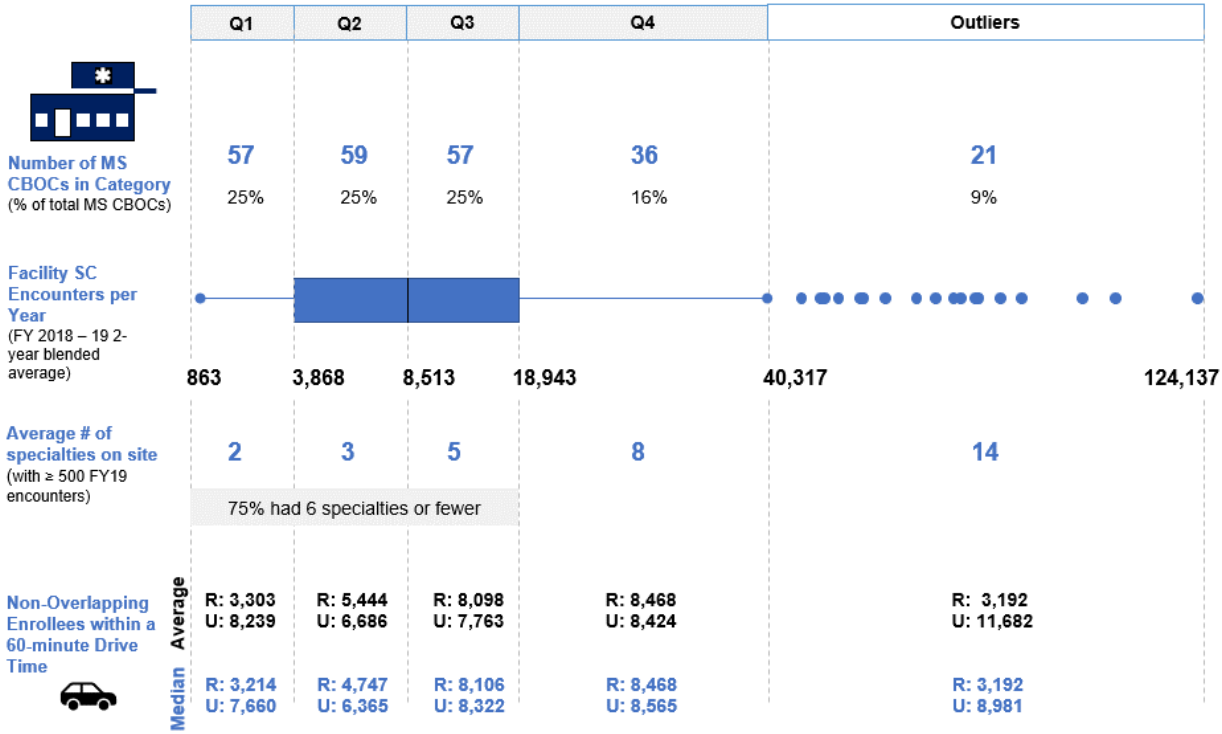
Enrollee Proximity and Number of On-Site Specialties

Enrollees within a distance of a location is one method of predicting the level of services required at a location and the assumed services that will likely be supported, however, there are additional planning steps to be considered closer to programming and design. The enrollees-within-a-drive time method of planning guidelines can be used for long-range capital planning and guide future design programming discussions.

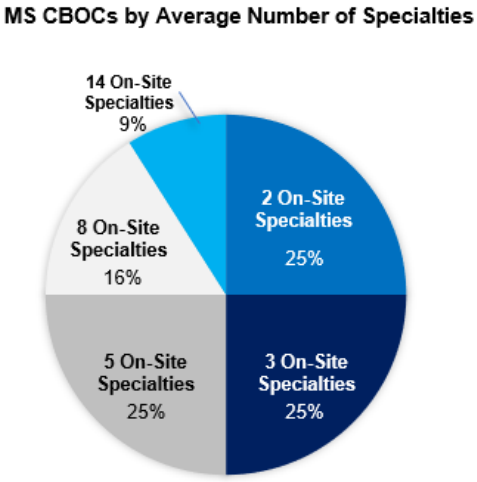
To study enrollees within a 60-minute drive time of an MS CBOC the 230 MS CBOCs were divided into quartile categories based on annual specialty care encounter volume using a blended 2-year (FY 2018 -19) encounter average. The result was five

categories – the four quartiles and an outlier category. Two key factors were studied for each quartile – the number of specialties on-site and the number of enrollees within a 60-minute drive time. The average and median number of non-overlapping enrollees within a 60-minute drive time were assessed by quartile and rurality.

Figure 22: *MS CBOC Divided into Quartile Categories based on Specialty Care Encounter Volume*



Source: EHCPM (Encounters), VAST Facility Hierarchy (Site Classifications), Geocoded Enrollee File FY 2018 Q4 (Enrollee Proximity and Rurality)



The lower quartile (Q1) had 57 MS CBOCs, a two-year blended average of 3,868 specialty care encounters per year, and an average of two on-site specialties. There was an average of 3,303 enrollees within 60 minutes of the rural MS CBOCs and 8,239 enrollees within a 60-minute drive time of the urban MS CBOCs. The second quartile (Q2) had 59 MS CBOCs, a two-year blended average of 8,513 specialty care encounters per year, and an average of three specialties on-site. There was an average of 5,444 enrollees within a 60- minute drive time of the rural MS CBOCs and 6,686 enrollees within a 60-minute drive time of the urban MS CBOCs. The third quartile (Q3) had 57 sites, a two-year blended average of 18,943 specialty care encounters per year, and an average of five on-site specialties.

There was an average of 8,098 enrollees within a 60-minute drive time of the rural MS CBOCs and 7,763 enrollees within a 60-minute drive time of the urban MS CBOCs. The fourth quartile (Q4) had 36 MS CBOCs, a two-year blended average of 40,317 specialty care encounters per year, and an average of eight on-site specialties. There were 8,468 enrollees within a 60-minute drive time of the rural MS CBOC (there was only one rural MS CBOC in this quartile) and there was an average of 8,424 enrollees within a 60-minute drive time of the urban MS CBOCs. Statistically, there were 21 MS CBOCs that were outliers that had a two-year average of specialty care encounters per year between 43,255 and 124,137 and an average of 14 on-site specialties. There were 3,192 enrollees within a 60-minute drive time of the one rural MS CBOC in this category, and there was an average of 11,682 enrollees within a 60-minute drive time of the urban outlier sites.

A second method was used that studied enrollee proximity by each tier specialty. The MS CBOCs were filtered to those that provided more than 500 encounters of a given specialty. Enrollee proximity medians were then calculated by rurality using each tier specialty's sample data set.

Using each respective tier specialty's data set from the method above, a third study was done using an encounters-per-enrollee utilization rate (number of encounters per 1,000 enrollees within 60 minutes) to calculate how many enrollees would need to be within 60 minutes of a site to produce demand for 0.7 FTE (using RVU-to-FTE OPES standards).

The first enrollee proximity method (the quartile method) had the lowest thresholds across the multiple methods and was chosen as the planning guideline.

Specialty Suggestions by MS CBOC Tier

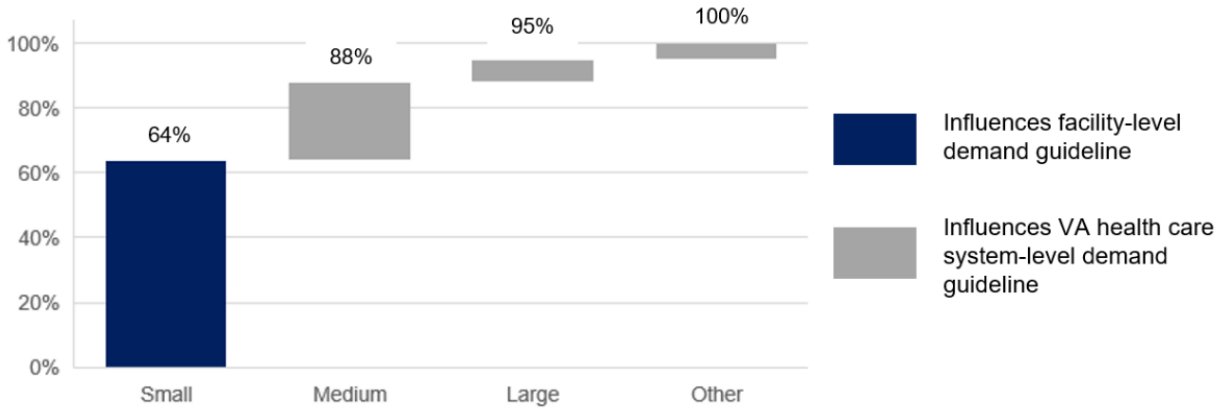
The Small MS CBOC tier suggests considering Audiology, Optometry, and Physical Medicine & Rehabilitation (PM&R) specialties. These three specialties made up approximately 64% of all specialty care volume in MS CBOCs when considering a FY 2018-19 2-year blended average number of encounters. Each specialty alone represented approximately 20% of the total national volume of specialty care encounters within MS CBOCs.

The Medium MS CBOC tier adds Podiatry, Critical Care/ Pulmonology, Dermatology, Cardiology, and Ophthalmology, which when including the small tier specialties represented about 88% of the total national specialty encounter volume within MS CBOCs.

The Large MS CBOC tier adds Endocrinology, Orthopedics, Urology, Surgery, Gastroenterology, and Dentistry, which when including the small and medium tier specialties comprise of 95% of the total volume of specialty care encounters within MS CBOCs. As noted in earlier sections, Dentistry has a unique planning methodology using dental eligibles, and could be planned in any of the MS CBOC tiers. It is

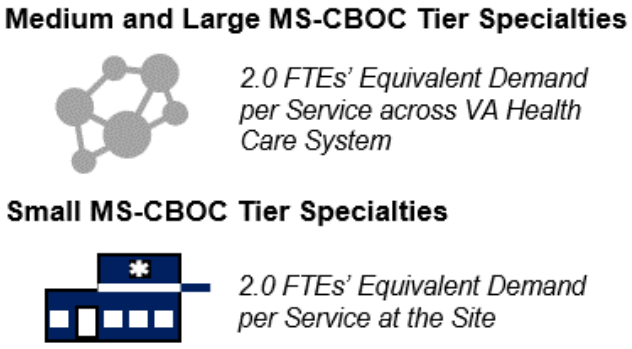
recommended to work with the Office of Dentistry to coordinate planning sustainable dental services.

Figure 23: *FY 2018- 19 National Specialty Encounter Volume within MS CBOCs by MS CBOC Tiers' Specialties*



Note: The above is for specialty care encounters within MS CBOCs only
Source: VSSC Encounters Cube

RVU Demand per Specialty by MS CBOC Tier



As covered above, the small MS CBOC tier specialties (Audiology, Optometry, and PM&R) are the most in-demand at outpatient sites. The guideline to have a minimum of 2 FTEs' equivalent demand to invest in opening a new MS CBOC or expand a CBOC by building specialty-specific space, is to support adequate coverage of these high-demand services and ensure utilization of the site. These specialty-specific spaces – for example, audio testing booths, eye lanes, and physical therapy gym spaces – are only used by one department, as opposed to multi-purposed exam spaces that are shared across many specialties, and are services that are commonly found in the community. For these reasons, it is suggested to have 2 FTEs' equivalent demand at the site for VA to efficiently provide these services.

Medium and Large MS CBOC specialties have less demand and full-time resources will likely round throughout the VA health care system (service area). Additionally, the spaces required are more flexible. For these reasons, it is suggested to have 2 FTEs' equivalent demand across the VA health care system to efficiently serve Veterans.

The guideline to have a minimum of two FTEs per service, whether it be site-specific, or across a service area, is suggested to minimize clinical services supported by only one provider. One-provider service offerings introduce access challenges due to vacations, sick-days, retirements, or other unforeseen absences.

Procedure Room Guidelines

Procedure room guidelines were influenced by DoD, IHS, and private sector benchmarks, the Surgery National Planning Strategy, and VA leadership input. The guidelines assume 240 operating days per year and an 8-hour operating day, which follows the regular work schedule and accounts for holidays. A room utilization rate of 85% was assumed which allows for time between procedures and any required routine equipment maintenance. These fixed factors are used to calculate the number of procedures suggested per year to efficiently operate a procedure room.

$$\frac{\text{(Days per Year)(Hours in a Day)}}{\text{Average Procedure Time (minutes)} \div 60}\ \text{(Utilization Rate)= Procedures per Year}$$

To have an efficient procedure room, 1,600 procedures are recommended per year (rounding down from 1,632).

Gastroenterology is likely to be a major utilizer of procedure centers due to the scope of practice of the specialty. For an ambulatory endoscopy center serving only gastroenterology, GI leadership suggests using a 1,200 procedures per year benchmark.

5. Future Program Planning

5.1 Applying the Specialty Care National Planning Strategy to VA Market Assessments

The VA MAHSO effort completed an initial assessment of VA markets, facilities, and service lines to produce recommendations for the design of high-performing integrated delivery networks. VA Leadership identified select service lines, studied during the market assessments, for development of a standard national strategy and approach to planning and maintaining programs. Specialty Care was identified as a service line requiring a set of national planning guidelines and thresholds that would be applicable for use in current (MAHSO) and future planning efforts.

The Specialty Care National Planning Strategy establishes directional planning guidelines to be used for VA MS CBOC and HCC planning efforts moving forward.

The planning guidelines will be used in the market assessments to provide a greater level of specificity to new MS CBOC and HCC opportunities and can be useful to VA planners to inform future quadrennial market assessments and other planning exercises.

How will MAHSO apply the Specialty Care National Planning Strategy?

The four-step process for revisiting MAHSO draft opportunities describes how MS CBOC specific opportunities will be reviewed and updated, if necessary:

1. Review Phase 1-3 Market Assessment Data and MS CBOC Opportunities

The scope of review will include revisiting Phase 1-3 markets, re-assessing all market opportunities using new thresholds and data (as applicable), and potentially developing new opportunities.

2. Apply MS CBOC Specialty Care Planning Guidelines

For each market and applicable draft MS CBOC opportunity, the planner will review market assessment data and apply the MS CBOC planning guidelines. The reassessment will include any new data sources in the updated methods described previously. Next, planning guidelines developed here (demand, supply, access, quality, and mission, and other applicable MISSION Act § 203 criteria) will be applied to existing opportunities.

3. Update/Create MS CBOC Opportunities

As needed, existing market optimization or capital opportunities will be revised. In addition, after application of the planning guidelines and thresholds, new opportunities may also be created.

4. Review and Finalize with VA Leadership

Once draft opportunities are revised or developed and are ready for VA Leadership approval, a review with the Chief Strategy Office (CSO), VHA Leadership, and VISN Directors will move the opportunities towards finalization.

Future Planning Recommendations to aid in Specialty Care Delivery

Throughout the development of the Specialty Care National Planning Strategy, areas for consideration for future planning efforts were identified. It is recommended that the following be considered for future market assessments to further support delivering specialty care to Veterans.

Project Stakeholders

1. Include the Office of Connected Care in market planning through site visits or interviews with Telehealth Coordinators in parallel to planners' site visits and interviews.
2. Include the Office of Dentistry and the National Nephrology Program in the SCPO in market planning to synchronize their existing planning methodology and process.
3. Include the National Surgery Office for HCC planning.

Market Assessment Data

4. In addition to using historical VA and community care utilization data, include Veteran disease prevalence and enrollee disease prevalence data at market, sub-market, and sector levels. This can assist in further developing a preventative care model, as well as understand unmet demand needs.
5. Include the Clinical Resource Hub resources (providers by specialty).
6. Project invasive procedures by complexity level to help determine capital need (HCC Tier 1 versus HCC Tier 2 with an ASC).
7. Include dental eligibles (unlimited comprehensive scope of care).

Policy

8. Re-consider rural 30- and 60-minute drive time expectations in rural and highly rural areas to more closely align with CMS guidelines and expectations among the general population.

Conclusion

The Specialty Care National Planning Strategy, created with consultation from many specialty offices, is a framework for developing long-range specialty care market planning and provides guidance on how facility planning can respond to varied market demands and trends while optimizing VA resources in a Veteran-centric framework. These guidelines will be used to ensure that capital planning is matched to Veteran

demand and a consistent set of recommendations is established to inform and support the development of the AIR Commission Report.

Appendix A: Sources

1. Collins A. Why people wear glasses may surpise you. *All About Vision*. January 2021. Available at: https://www.allaboutvision.com/eyeglasses/faq/why-people-wear-glasses/. Accessed 2021.
2. Affairs USDoV. *Veterans Health Administration Dental Program*. Washington, DC: Veterans Health Administration; 2020. VHA Handbook 1130.01(1).
3. Affairs USDoV. *Physical Medicine and Rehabilitation Service*. Washington, DC: Veterans Health Administration; 2019. VHA Directive 1170.03.
4. Affairs USDoV. Surgical Services - National Surgery Office (NSO). *United States Department of Veterans Affairs Intranet*. January 26, 2018. Available at: http://vaww.dushom.va.gov/surgery/index.asp.
5. Affairs USDoV. Patient Care Services. *U.S. Department of Veterans Affairs*. Available at: https://www.patientcare.va.gov/diagnosticservices.asp. Accessed August 08, 2021.
6. Boyle P. US physician shortage growing. *Association of American Medical Colleges*. June 26, 2020. Available at: https://www.aamc.org/news-insights/us-physician-shortage-growing. Accessed 2021.
7. Americans. IoM(CotFHCWfO. *Retooling for an Aging America: Building the Health Care Workforce.* Washington, D.C.; 2008.
8. Affairs USDoV. *Enrollee Health Care Projection Model* 2020.
9. IB 10-442 Dental Benefits for Veterans. *Va,gov*. February 2019. https://www.va.gov/healthbenefits/resources/publications/IB10-442_dental_benefits_for_veterans.pdf. Accessed June 18, 2021.
10. 38 U.S. Code § 1712 - Dental care; drugs and medicines for certain disabled veterans; vaccines. *law.cornell.edu*. https://www.law.cornell.edu/uscode/text/38/1712. Accessed 2021.
11. Clark T SJBP. Early Release of Selected Estimates Based on Data From the 2019 National Health Interview Survey. *U.S. Department of Health and Human Services Centers for Disease Control and Prevention National Center for Health Statistics*. September 2021. Available at: https://www.cdc.gov/nchs/data/nhis/earlyrelease/EarlyRelease202009-508.pdf. Accessed July 2021.
12. Affairs DoV. *VHA Directive 1053*: Veterans Health Administration; 2020.
13. Affairs DoV. MAHSO National Planning Strategy Interviews. *Neprhology Program Office Interview*. May 6, 2021.
14. U.S. Department of Veteran Affairs. *CRH FY22 RFA for ICC Specialty Leads*. 2021.
15. OPES Privder Specialty Practice Management (Internal VA). *OPES Internal Site*. 2021. http://opes.vssc.med.va.gov/Pages/Provider-Specialty-Practice-Management.aspx. should access this. Accessed June 2021.

16. VHA Better Data and Evaluation Could Help Improve Physician Staffing, Recruitment and Retention Strategies (GAO 18-124). *gao.gov*. October 2017. https://www.gao.gov/assets/690/688576.pdf. Accessed June 30, 2021.
17. VA Directive 1065. *Veterans Association*. January 2021. https://www.va.gov/vhapublications/ViewPublication.asp?pub_ID=9130. Accessed June 2021.
18. Affairs USDoV. VHA Operative Complexity. Available at: va.gov/health/surgery/#more_info. Accessed 2021.
19. Affairs USDoV. About VA. *U.S. Department of Veterans Affairs*. 2021. Available at: https://www.va.gov/about_va/. Accessed 2021.
20. Affairs USDoV. *VSSC Telehealth Dashboard*. Washington, DC 2021.
21. McKinsey & Company, Inc. A Product of the CMS Alliance to Modernize Healthcare Federally Funded Research and Development Center Centers for Medicare & Medicaid Services (CMS). *VA Community Care*. September 1, 2015. Available at: https://www.va.gov/opa/choiceact/documents/assessments/assessment_k_facilities.pdf.
22. Telemedicine tcC1patfanrapmfitU. Kichloo A, Albosta M, Dettlof K, et al. *Family Medicine and Community Health*. August 2020.
23. Sadiq Y. Patel AMea. Variation In Telemedicine Use And Outpatient Care During The COVID-19 Pandemic In The United States. *Health Affairs*. February 2021;40(2).
24. Donovan MP. *DoD Instruction 6000.19 Military Medical Treatment Facility Support of Medical Readiness Skills of Health Care Providers*: Department of Defense; 2020. DoD Instruction 6000.19.
25. Health.mil. *health.mil*. Available at: health.mil/About-MHS. Accessed July 8, 2021.
26. Oeffinger KC FEERea. Breast Cancer Screening for Women at Average Risk: 2015 Guideline Update From the American Cancer Society. *JAMA*. April 2016:5-315.
27. Lisa C. Richardson MM. Update on Cancer Deaths in the United States. *Centers for Disease Control and Prevention*. February 23, 2021. Available at: https://www.cdc.gov/cancer/dcpc/research/update-on-cancer-deaths/index.htm. Accessed August 16, 2021.
28. KFF. Financial Performance of Medicare Advantage, Individual, and Group Health Insurance Markets. *KFF*. August 2019. Available at: https://www.kff.org/report-section/financial-performance-of-medicare-advantage-individual-and-group-health-insurance-markets-appendix/.
29. Freed M. A dozen Facts About Medicare Advantage in 2020. *KFF*. January 13, 2021. Available at: https://www.kff.org/medicare/issue-brief/a-dozen-facts-about-medicare-advantage-in-2020/.
30. CMS.gov. 2019 Star Ratings Fact Sheet. *CMS*. October 2020. Available at: https://www.cms.gov/files/document/2021starratingsfactsheet-10-13-2020.pdf.

31. Commonwealth Fund. Medicare Data Hub. *Commonwealth Fund*. October 2020. Available at: https://www.commonwealthfund.org/sites/default/files/2020-10/Medicare%20Data%20Hub_October2020.pdf.
32. KFF.org. A Dozen Facts About Medicare Advantage in 2020. *KFF.org,*. January 2021. Available at: A Dozen Facts About Medicare Advantage in 2020.
33. Guidehouse. Now is the Time for Payvider Adoption & Growth. *Guidehouse.com*. June 2021. Available at: https://guidehouse.com/insights/healthcare/2021/payvider-market-index. Accessed July 26, 2021.
34. Affairs DoV. Do-it-yourself dialysis for Pittsburgh CLC Veterans. *VAntage Point*. June 22, 2020.
35. Affairs USDoV. *VHA Site Classifications and Definitions*. Washington, D.C.: Veterans Health Administration; 2013. VHA Handbook 1006.02.
36. Sadiq Y. Patel AMHAHLUPIGMLB. Variation In Telemedicine Use And Outpatient Care During The COVID-19 Pandemic In The United States. *Health Affairs*. February 2021;40(2).
37. Nasseh K VM. Dental benefits coverage increased for working-age adults in 2014. *American Dental Association Health Policy Institute Research Brief*. 2016. Available at: http://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1016_2.pdf?la=en. Accessed July 2021.
38. Rebecca Siegel KMHFAJ. *Cancer Statstics*: Pubmed; 2021.
39. Centers for Disease Control and Prevention. Tobacco Product Use Among Military Veterans. *Morbidity and Mortality Weekly Report*. 2010-2015;67:7-12.
40. United States Prevention and Screening Task Force. USPSTF Lung Cancer Screening. *www.uspreventiveservicestaskforce.org*. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening. Accessed August 2021.
41. American Cancer Society. Causes risks prevention of colon rectal cancer. June 9, 2020. Available at: https://www.cancer.org/cancer/colon-rectal-cancer/causes-risks-prevention/prevention.html. Accessed July 2021.
42. Affairs USDoV. Office of Connected Care Interview
43. Affairs DoV. *Chronic Kidney Disease Prevention, Early Recognition, and Management* 2020.

Appendix B: Interviews

Office	Interviewee and Title	Date(s)*
National Specialty Care, Dentistry, Optometry, and Women's Health Program Offices	• Dr. Ajay Dhawan, Acting Chief Officer • Dr. Maggie Chartier, Acting Director of Clinical Operations • Dr. Lisa Jensen, Acting National Director for Medicine • Katie Murphy, HSS • Dr. Scott Trapp, Deputy to the Assistant Under Secretary for Health for Dentistry • Dr. Mary Jo Horn. Chief, Eye Clinic, Veterans Health Care System of the Ozarks (VHSO) • Samina Iqbal, Women's Health Program Office Representative	April 27, 2021
Office of Dentistry, And Specialty Care Program Offices	• Dr. Scott Trapp, Deputy to the Assistant Under Secretary for Health for Dentistry • Katie Murphy, HSS	May 3, 2021
National Specialty Care, Diagnostics, Podiatry, Optometry, Gastroenterology, Dentistry Program Offices	• Dr. Ajay Dhawan, Acting Chief Officer • Dr. Maggie Chartier, Acting Director of Clinical Operations • Dr. Lisa Jensen, Acting National Director for Medicine • Katie Murphy, HSS • Dr. Jeffery Robbins, National Podiatry Program Director • Dr. Lisa Wall, Assistant Director, National Radiology Program • Dr. Jeff Chenoweth, Associate Director, National Radiology Program • Dr. Jason Dominitz, National Gastroenterology Program Director • Dr. Mary Jo Horn. Chief, Eye Clinic, Veterans Health Care System of the Ozarks (VHSO) • Dr. Scott Trapp, Deputy to the Assistant Under Secretary for Health for Dentistry	May 4, 2021
National Optometry, Gastroenterology, Podiatry, Specialty Care, and Women's Health Program Offices	• Dr. Mary Jo Horn. Chief, Eye Clinic, Veterans Health Care System of the Ozarks (VHSO) • Dr. Jason Dominitz, National Gastroenterology Program Director • Dr. Danae Lowell, Director of Residency Training, Member, Podiatry Field Advisory Committee • Dr. Lisa Jensen, Acting National Director for Medicine • Samina Iqbal, Women's Health Program Office Representative	May 4, 2021
National Anesthesia, Nephrology, Pain Management, Specialty Care, and Women's Health Program Offices	• Dr. Ronald Albrecht, Chief of Anesthesiology • Thomas Rubenzer, Deputy Chair, Anesthesia FAC • Dr. Roberta Reedy , Deputy Director, Anesthesia Service, VA Central Office • Dr. Christina Matadial, National Director, Anesthesia Service • Dr. Susan Crowley, National Nephrology Program Director • Katie Murphy, HSS • Dr. Kathryn Lange, Director, Opioid Safety & Prescription Drug Monitoring Program • Samina Iqbal, Women's Health Program Office Representative • Dr. Kathryn Lange	May 6, 2021

National Cardiology and Specialty Care Program Offices	• Dr. Richard Schofield, National Cardiology Program Director • Dr. Ajay Dhawan, Acting Chief Officer • Dr. Maggie Chartier, Acting Director of Clinical Operations • Debra Blansett	May 7, 2021
National Diagnostics Program Office	• Dr. William Arndt, Chief of Radiology, VA Boston Healthcare System • Dr. Lisa Wall, Assistant Director, National Radiology Program • Dr. Jeff Chenoweth, Associate Director, National Radiology Program • Dr. David Bushnell	May 7, 2021
National Critical Care and Pulmonology and Specialty Care Program Offices	• Dr. David Au, Director, Center of Innovation for Veteran-Centered and Value-Driven Care, VA Puget Sound Care System Chair • Dr. Ajay Dhawan, Acting Chief Officer • Dr. Maggie Chartier, Acting Director of Clinical Operations	May 13, 2021

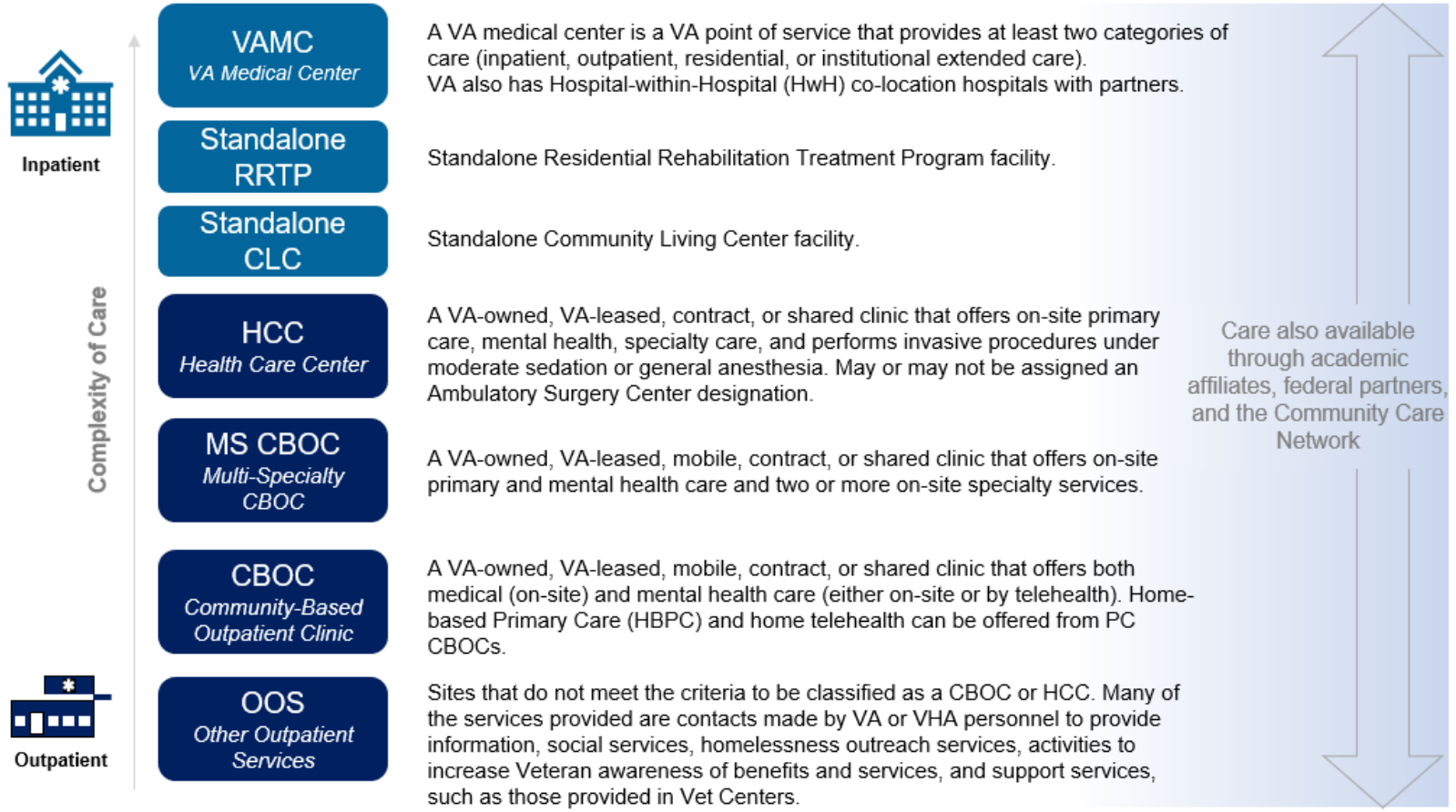
*The above are non-exhaustive list of interview dates. Weekly working sessions were also held with program offices between April 20, 2021 and August 3, 2021.

Appendix C: Acronyms

Acronym	Definition
AA	Academic Affiliate
AIR	Asset and Infrastructure Review
ASC	Ambulatory Surgery Center
CBOC	Community Based Outpatient Clinic
CCN	Community Care Network
CQUI	Clinical Quality Improvement
CSO	Chief Strategy Office
DoD	Department of Defense
EHCPM	VA Enrollee Health Care Projection Model
FTE	Full Time Equivalent
GME	Graduate Medical Education
HCC	Health Care Center
HSPC	Health System Planning Categories
HwH	Hospital-within-a-Hospital
IHI	Institute for HealthCare Improvement
JOES	Joint Outpatient Experience Survey
MAHSO	Market Area Health Systems Optimization
MHS	Military Health System
MISSION	Maintaining Internal Systems and Strengthening Integrated Outside Networks
MS CBOC	Multi-Specialty Community Based Outpatient Clinic
MTG	Military Treatment Facility
NPS	National Planning Strategy
OPES	Office of Productivity, Efficiency, and Staffing
ORs	Operating Rooms
RVU	Relative Value Unit
SAIL	Strategic Analytics for Improvement and Learning
SCPO	Specialty Care Program Office
TPA	Third Party Administrators

Acronym	Definition
USPSTF	United States Prevention and Screening Task Force
VA	Veterans Affairs
VAMC	VA Medical Center
VASQIP	Veterans Affairs Surgical Quality Improvement Program
VHA	Veterans Health Administration
VHSO	Veterans Health System of the Ozarks
VISN	Veteran Integrated Service Networks

Appendix D: VHA Site Classifications

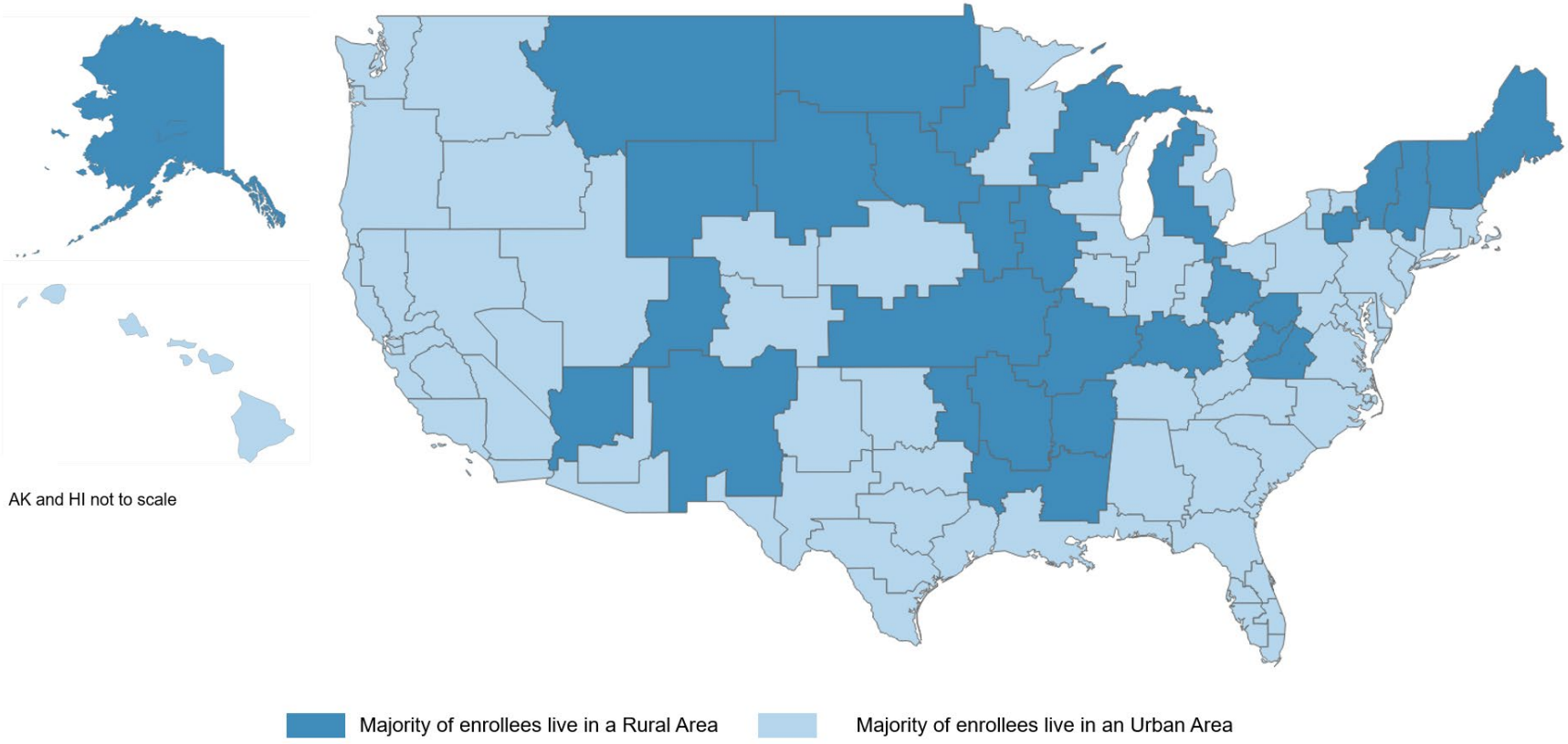


Source: VHA Directive 1229(1), *Planning and Operating Outpatient Sites of Care*. 2019.

Appendix E: VHA Market and Submarket Rurality

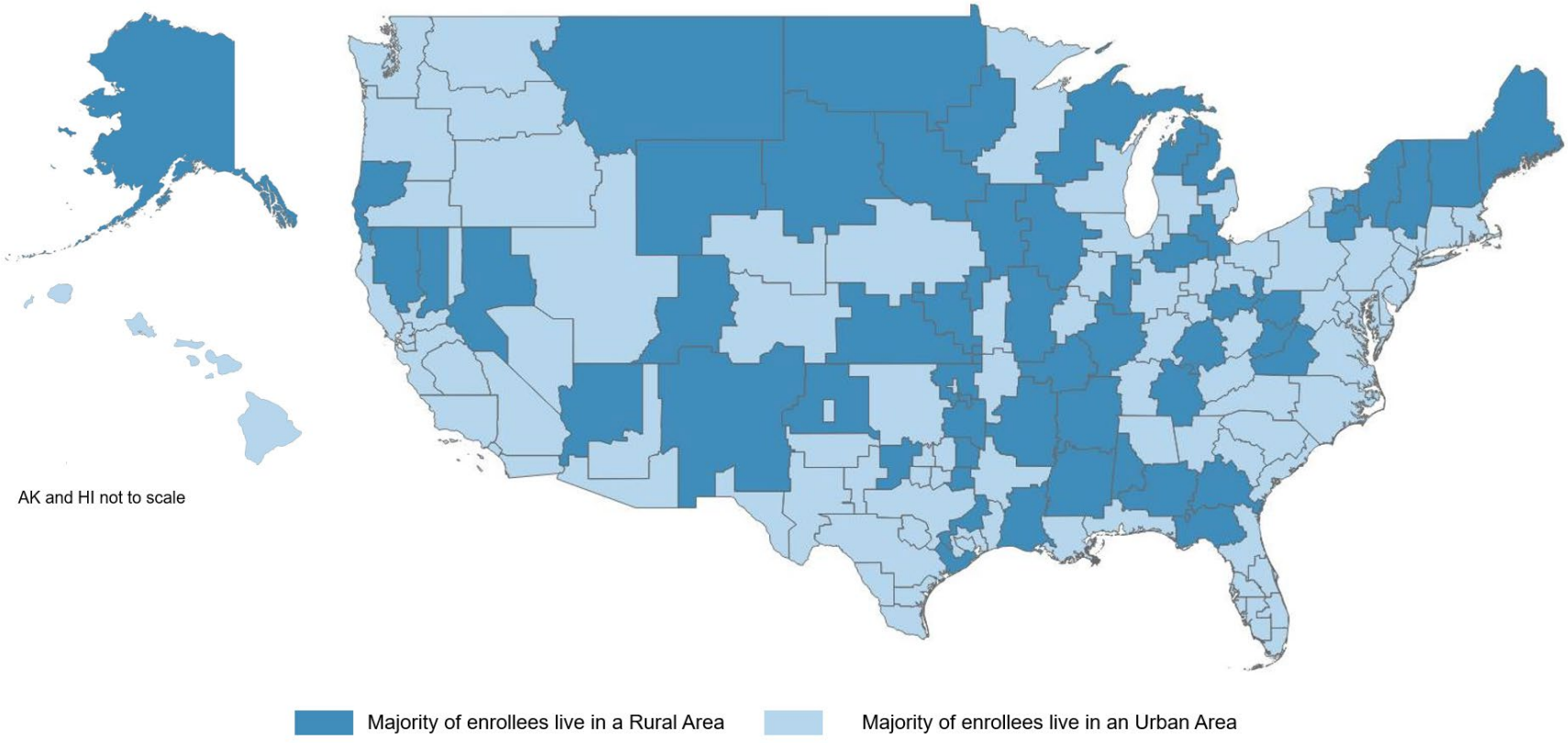
Rurality by market: There are 96 markets, 66 of which had most enrollees living in urban areas in FY 2018 and 30 markets with the majority of enrollees living in rural areas.

VHA Market Map by Enrollee Majority Rurality

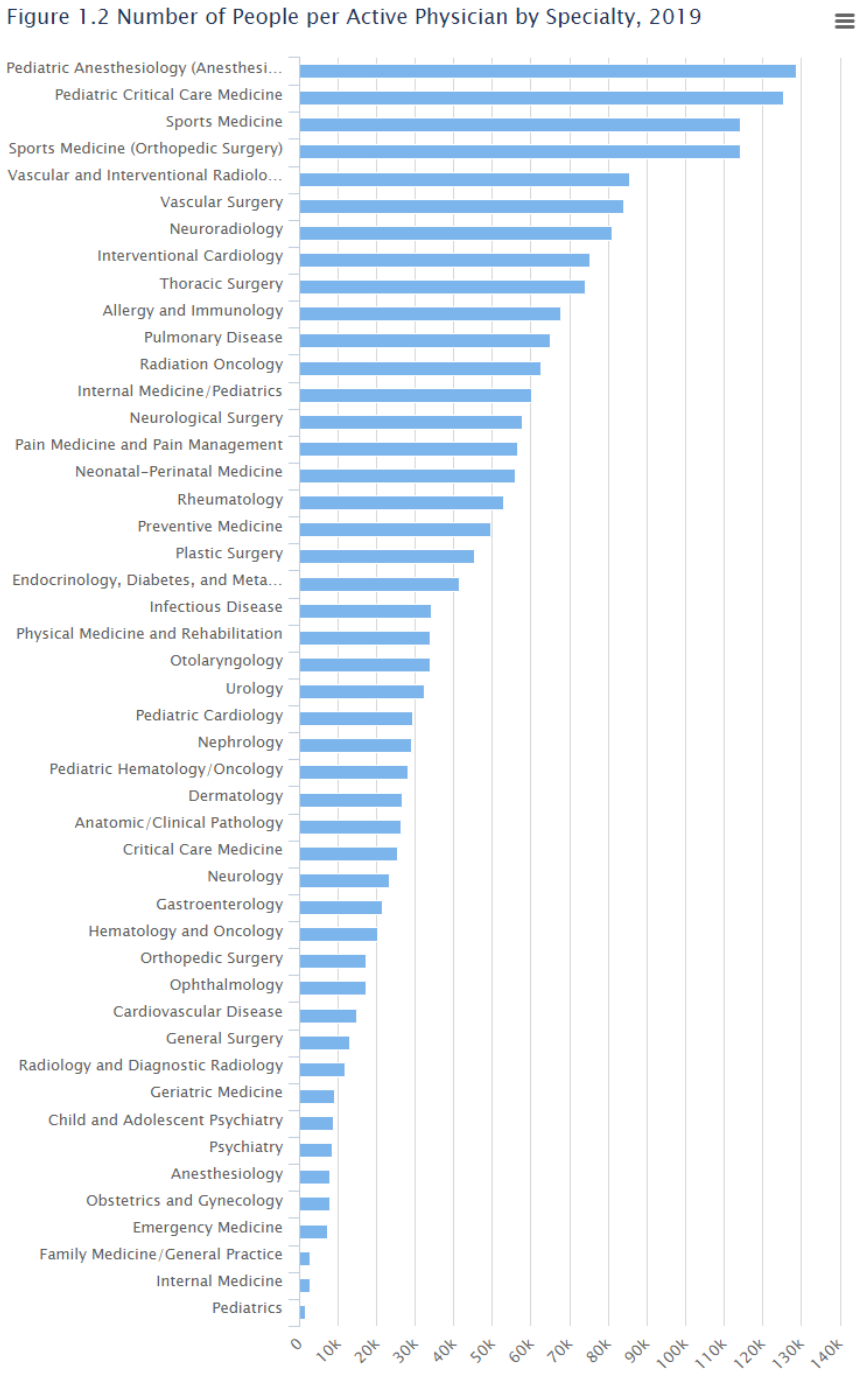


Rurality by submarket: Of the 96 markets, 34 had more than one submarket in FY 2018. There were 153 submarkets, 96 of which had most enrollees living in urban areas and 57 submarkets with most enrollees living in rural areas.

VHA Submarket Map by Enrollee Majority Rurality

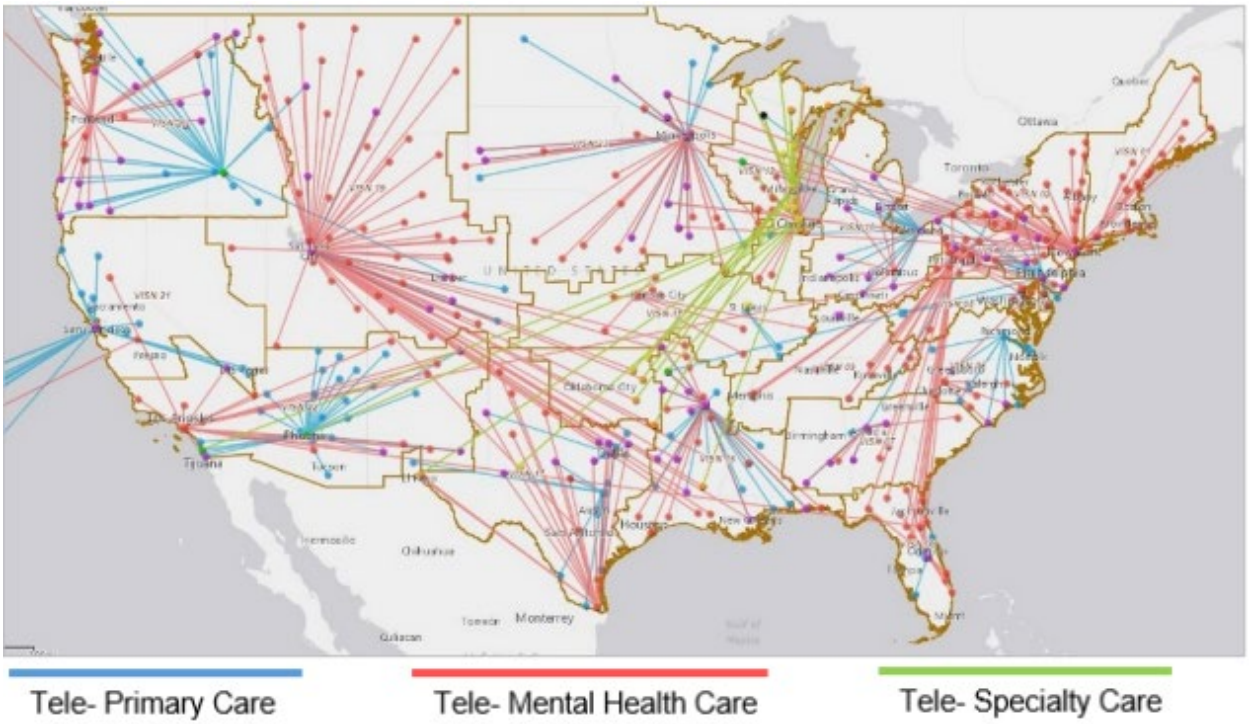


Appendix F: General Population Number of People per Active Physician by Specialty, 2019



Source: American Medical Association. AMA Physician Masterfile (December 2019); U.S. Census Bureau.

Appendix G: VA Tele-PC, Tele-MH, and Tele-SC Clinical Resource Hub Networks



Source: VA ORH. 2020

Appendix H: Correlation Matrix of Rurality and Dental Eligibility

Market Level				
Correlation Matrix	Adj Total Dental Eligible	% Rural	DE:ME	Total Enrollees
Adj Total Dental Eligible	-	-0.35	0.50	-
% Rural	-0.35	-	-0.12	-0.41
DE:ME	0.50	-0.12	-	0.17
Total Enrollees	-	-0.41	0.17	-

Source: VA Office of Dentistry, *Dental Comp Care Eligible and Seen 20201001* (Dental Eligibles), Geocoded Enrollee File FY 2018 Q4 (rurality)

Appendix I: Invasive Procedure Complexity Designations with Corresponding Site Classification

		Invasive Procedure Complexity Designation Per Directive 1220						
		Outpatient Basic	Outpatient Intermediate	APC Basic	Inpatient Standard	APC Advanced	Inpatient Intermediate	Inpatient Complex
Site Classification Per Directive 1229	Ambulatory Clinic (e.g., MS-CBOC)	✓	x	x	x	x	x	x
	HCC with Procedure Center (Non-ASC)	✓	✓	x	x	x	x	x
	ASC HCC	✓	✓	✓	x	✓	x	x
	VAMC	✓	✓	✓	✓	✓	✓	✓