MAHSO

MARKET AREA HEALTH SYSTEMS OPTIMIZATION

National Planning Strategy

Women's Health

September 2021

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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 the Asset and Infrastructure Review (AIR) Commission Report which will present Veterans Health Administration's (VHA's) plan for the future of VA health care, enabling Veterans to access appropriate, high-quality care in the best 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 Women's Health National Planning Strategy establishes a consistent set of guidelines which will help to develop the opportunities that are specific to women's health services. Using comprehensive VA data, these guidelines can facilitate consistent alignment of women's health services' capacity and capabilities with the evolving needs of women Veterans.

The VHA Chief Strategy Office, committed to working with offices across the organization to create programs and services that best serve Veterans, developed the Women's Health National Planning Strategy in consultation with the Office of Women's Health (OWH) and VHA National Radiology Program.

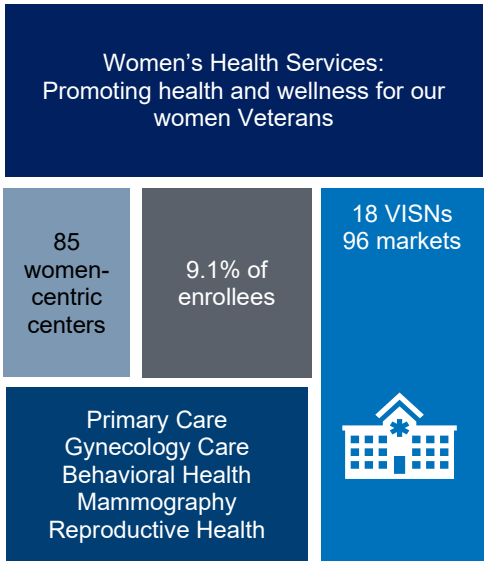
Women's Health Program Overview

Women comprise a small but rapidly growing number of Veterans seeking care at VHA health care sites. Since Congress mandated VA establish the Advisory Committee on Women Veterans to address needs specific to women Veterans in 1983, VA has devoted time and effort to reach out to women Veterans to ensure they understand their benefits and developed women-specific medical and behavioral health programs to meet the unique needs of these Veterans. Women Veterans include all Veterans who identify as women or persons who require gynecologic care.

Common health care system 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. Additionally, the absence of consistent and measurable thresholds for women's health primary care providers (WH-PCPs) and gynecology providers means local markets may plan for demand differently.

The mission of the OWH is to achieve a fully integrated, patient-centered approach to delivering comprehensive care to women Veterans in a sensitive and safe environment. [1] The OWH hopes to accomplish this through four goals:

- Goal 1: Women Veterans receive high-quality, patient-driven health care.
- Goal 2: Women Veterans receive care that is seamless, wholistic, and collaboratively delivered.
- Goal 3: Culture is transformed through employee accountability for women Veterans' experience.
- Goal 4: VA is a national leader in women's health.



In fiscal year 2019, 1,369,864 women Veterans were eligible for VHA benefits and 805,650 enrolled, which represented 9.1% of total enrollees. [2] More than 90% of sites delivering primary care have WH-PCPs, and 85 locations have Comprehensive Women's Health Centers enabling primary care delivery in a woman-centric environment. [3] In addition to primary and specialty care, women Veterans receive gynecological care, mammography, and specialized behavioral health services such as treatment for military sexual trauma in a caring environment. Women Veterans who do not live within VA MISSION Act access standards (driving distances) of VHA facilities can get their care in the community, and VHA also covers obstetrical care in the community for all pregnant eligible Veterans. Women's health services address women Veteran needs across their lifetimes. Interviews with OWH and VHA National Radiology Program, as well as data reviews, and analyses informed this planning strategy and associated guidelines.

Resulting Planning Guidelines and Thresholds

Planning guidelines and thresholds inform products of the market assessment process. The rationale for establishing VA planning guidelines and thresholds is based on the belief that quality of care or patient safety may be compromised when a service falls below identified measures.

Program priorities include ensuring there are enough WH-PCPs and gynecologists to provide care to the growing number of women Veterans enrolling in and using VA health care services, addressing burnout risk and mitigation strategies for WH-PCPs and other women-centric care providers, ensuring women Veterans have access to all appropriate and necessary gender-specific services, and creating a welcoming environment that is respectful to women Veterans. [4]

The Women's Health National Planning Strategy developed quantitative and qualitative planning guidelines across demand, supply, access, quality, and other applicable domains for select services. A summary of the primary demand planning guidelines is as follows:

Women's Health Planning Guidelines

Service	Primary Planning Guidelines
Women's Health Primary Care Provider (WH-PCP) Women-Only Panel Size	**Open:** • Minimum of 1,344 women Veteran enrollees within a 30-minute drive time of a VA site of care to support a women-only panel of 840 with 1.0 WH-PCP Full Time Equivalent Employee (FTEE). • WH-PCP FTEE pro-ratable based on number of women Veteran enrollees. **Maintain – Resize** • **Add WH-PCP women-only panel:** Add a new WH-PCP woman-only panel when number of current women Veteran users on women-only panels at a VA site of care approaches 80% and enrollees are projected to continue increasing. • **Reduce number of WH-PCP women-only panels:** Reduce or consolidate WH-PCP women-only panels when number of women Veteran users ≤ 80% of target (672 users when target is 840).
Gynecology (GYN) FTEE	**Open:** • Minimum of 9,000 women Veteran enrollees within a 60-minute drive time of a VA site of care for 1.0 GYN FTEE. • GYN FTEE is pro-ratable if there are less than 9,000 women Veteran enrollees. **Maintain – Resize:** • **Add GYN FTEE:** Add additional GYN FTEE when GYN encounters exceed 100% of target. FTEE based on projected demand. • **Reduce GYN FTEE**: Reduce GYN FTEE when GYN encounters per 1.0 GYN falls below 80% of target. **Partner (CCN/AA/Federal):** • Number of enrollees is less than 900 (<0.1 GYN FTEE) within a 60-minute drive time of a VA site of care.
Comprehensive Women's Health Center	**Open**: • Minimum of 5,376 women Veteran enrollees within a 60-minute drive time of a VA site of care for one Comprehensive Women's Health Center. Scalable by location. **Maintain – Resize:** • Number of women Veteran enrollees within a 60-minute drive time of a VA site of care is greater than or less than 5,376. **Maintain – Relocate:** • Locate Comprehensive Women's Health Center at a site where there is the densest population of women Veteran enrollees within a 60-minute drive of that VA site of care.

Future Program Planning

The four-step process for revisiting MAHSO draft opportunities describes how women's health-specific opportunities will be reviewed and updated, if necessary:

1. Review Phase 1-3 market assessment data and women's health opportunities
2. Apply women's health planning guidelines to opportunities that were specific to Comprehensive Women's Health Centers or gynecology
3. Update women's health opportunities
4. Review and finalize opportunities with VA Leadership

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 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 AIR Commission Report. They also will add to existing VA planning guidelines and be used for future planning activities.

1. Program Overview

Women Veterans, which include all Veterans who identify as women or persons who require gynecologic care, comprise a small but rapidly growing number of the Veteran population, and their care presents clinical and cultural challenges to a system that is historically men focused. The number of women Veterans that utilized Veterans Health Administration (VHA) outpatient services increased from 155,430 in fiscal year (FY) 2000 to 425,982 in FY 2015, an increase of 174.1% over 15 years. [4] Between FY 2019 and FY 2029, women enrollees are projected to increase 32.5% nationally, from 805,650 to 1,067,799 women enrollees, with the greatest increase projected in the southern region of the United States. [2]

Women Veterans have different health care needs and use health care differently than men Veterans over their lifetimes, and VHA leadership commits to ensuring appropriate and equitable care for these Veterans. The Office of Women's Health (OWH) develops program guidance and policy direction for all aspects of health care for women Veterans, and the Chief of OWH reports directly to the Under Secretary for Health.

1.1 Program Mission

The OWH mission is to achieve a fully integrated, patient-centered approach to delivering comprehensive care to women Veterans in a sensitive and safe environment. The OWH hopes to accomplish this through the following four goals: [1]

- Goal 1: Women Veterans receive high-quality, patient-driven health care.
- Goal 2: Women Veterans receive care that is seamless, wholistic, and collaboratively delivered.
- Goal 3: Culture is transformed through employee accountability for women Veterans' experience.
- Goal 4: Veterans Affairs (VA) is a national leader in women's health.

These goals align directly to VA priorities from the 2019 VA Priorities and VHA Strategic Plan presented in Table 1. [1] Unlike other program offices, however, the OWH creates policy that applies to many distinct aspects of women's health such as comprehensive primary care, women's health education, reproductive health, and health communication and partnerships. These policies inform the service lines that support women's health, including primary care, gynecology, behavioral health, medical specialties for which women may have special needs such as cardiology or endocrinology, and other ancillary services. Veterans Integrated Service Network (VISN)-level Lead Women Veteran Program Managers and health care system Facility Women Veteran Program Managers oversee operations and work with local leadership to ensure planning efforts conform to and meet or exceed the expectations outlined by the OWH priorities, policies, and goals. [5]

Although VHA OWH's directives guide planning for women's health care within VA, the absence of consistent and measurable supply thresholds for women's health primary

care providers (WH-PCPs) and gynecology providers means local markets may plan for demand differently. The development of a VHA national planning strategy for women's health will better align market resources with current and future market demand as the enrolled population grows.

Table 1: *FY 2019 VA Priorities, VHA Priorities, and Women's Health Goals*

Department	Priority	Goal 1: High-quality, patient driven health care	Goal 2: Seamless, wholistic, and collaborative care	Goal 3: Cultural trans-formation	Goal 4: National leader in women's health care
VA	Improve Customer Service	✓	✓		✓
	Implement VA MISSION Act		✓	✓	✓
	Implement Electronic Health Record	✓			✓
	Transform Business Systems		✓		✓
VHA	Restore Trust			✓	✓
	Modernize Systems	✓	✓		
	Create a Learning Organization			✓	

Source: U.S. Department of Veterans Affairs, VA Priorities and VHA Strategic Plan: 2019 VA Priorities, FY 2020-24 Veterans Health Administration Long-Range Planning Framework.

2. Current State Overview

VA Women's Health Services Background, History, and Evolution

The 1982 Government Accountability Office report "Actions Needed to Insure that Female Veterans Have Equal Access to VA Benefits" found that women Veterans could not receive complete physicals or gynecological care at VHA facilities, and they were often unaware they could receive care through VHA. [6] Congress mandated VA establish the Advisory Committee on Women Veterans to address needs specific to women Veterans in 1983. [6] Advisory Committee activities addressed women's health care needs, and the result of their work included the appointment of regional Women Veterans Coordinators in 1986 and creation of a VHA office to address women's health issues in 1988. Congress amended 38 U.S.C. § 601 that addresses Veteran benefits, to include the Women Veterans Health Programs Act of 1992. [7] This Act includes provisions for military sexual trauma care and expanded general care and research for and about women Veterans and serves as the foundation for women's health care delivery. In 2020, VA realigned the OWH to the Under Secretary for Health in compliance with the Johnny Isakson and David P. Roe, MD Veterans Health Care and Benefits Improvement Act of 2020. [8]

In 2010, VHA launched the Patient Aligned Care Team (PACT) model, a team based "medical home" model to deliver primary care to all Veterans seeking this service. The model allows for facilities to design PACTs for special populations such as women. Ninety percent of all clinic locations have a minimum of one WH-PCP, which are providers trained to deliver routine primary care and basic gynecological screening such as pelvic exams, cervical cancer screening, breast examinations, contraception, and other women-specific services. [3] As more women Veterans enroll in VHA care, the need for women-specific health services will continue to grow.

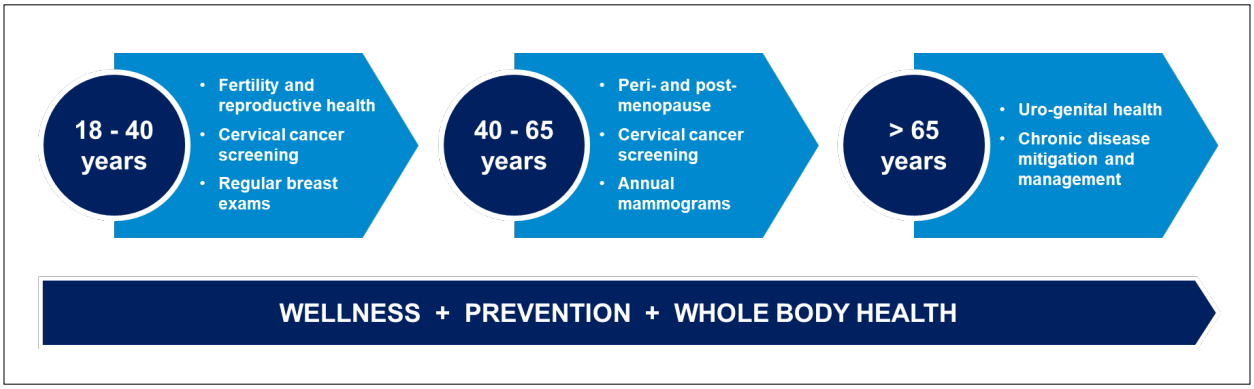
Continuum of Care

Women require and use distinct types of care over their lifetimes (see Figure 1). As part of primary care, women of reproductive age require routine gynecologic care and screening for cervical cancer. Some women will require gynecologic specialty care, some women may seek fertility care pre-conception, and pregnant women require maternity care during their pregnancies. VHA has adopted the American Cancer Society (ACS) guidelines which indicate women as early as age 40 years should have the opportunity to begin screening mammography, although women may choose to delay annual screening for breast cancer until age 45. Screening mammography may continue as long a woman is in good health and is expected to live at least 10 more years. [9]

Peri- and post-menopausal women may require treatment for menopausal symptoms, and women past 50 years of age are at increased risk for heart disease, diabetes, and Alzheimer's disease, which affects twice as many women as men. [10] Women are twice as likely to experience depression as men, with most cases in women diagnosed between ages 40 and 59, and women Veterans are twice as likely as non-Veteran

women to die by suicide. [10] Genitourinary care transitions from focusing on reproductive health to malignancies and diseases of aging. As women near the age of 65, ongoing care recommendations include additional immunizations, changes in cadence of pelvic exams, and at least one scan for bone health. After age 65, primary care continues to focus on prevention, chronic disease management, and enabling women to live healthy, functional lives.

Figure 1*: Women's Health Continuum of Care*



Source: Improving Women's Health: Health Challenges, Access, and Prevention. National Conference of State Legislatures.

Key Legislation

As women Veterans and their health care needs became proportionally larger in VA, several laws include guidance for management and delivery of these services. The OWH is accountable and tracks legislative compliance for the following acts:

- The Women Veterans Health Care Act of 1992 (P.L. 102-585), which authorized VA to provide gender-specific and counseling services for conditions related to military sexual trauma and expanded health care services to include cervical and breast cancer screening and general reproductive health care in addition to primary care. The Act instructed each region to appoint a VHA official to service as the coordinator of women's services to assess and enhance those services. [7]
- The Veterans' Health Care Eligibility Reform Act of 1996 (P.L. 104-262) established standards for mammography quality, privacy considerations for women Veterans, and requested an assessment of women Veterans' use of VA health care services. [11]
- The Veterans Millennium Health Care and Benefits Act of 1999 (P.L. 106-117), which mandated counseling, treatment, and outreach for Veterans who experienced military sexual trauma. [12]
- The Veterans Health Programs Improvements Act of 2004 (P.L. 108-422), which established a permanent military sexual trauma treatment program. [13]
- The Veterans Mental Health and Other Care Improvements Act of 2008 (P.L.110-387), which directed the Secretary to ensure domiciliary care includes adequate safety and capacity for Women Veterans. [14]

- The Caregivers and Veterans Omnibus Health Services Act of 2010 (P.L. 111-163), which addressed several factors affecting women Veterans' health care, including studies of barriers to care for women Veterans in VA, expanded training for providers who treat Veterans with sexual trauma and post-traumatic stress disorder, and testing a retreat setting for women Veterans who are newly separated from military service. [15]
- The Veterans Access, Choice and Accountability Act of 2014 (P.L. 113-146), which expanded eligibility for military sexual trauma treatment and requires biennial reports on workload and staffing. [16]
- The VA Maintaining Systems and Strengthening Integrated Outside Networks (MISSION) Act of 2018 (P.L. 115-182), which required development of criteria for designating facilities in underserved areas and plans for providing care in those facilities. [17] The MISSION Act also directly addresses Veterans' drive time limits for care. New eligibility criteria for Veterans to receive care in the community became effective June 6, 2019 and included new access standards based on drive times rather than distance. For specialty care services such as gynecology and mammography, women Veterans are now eligible to receive care in the community if the average drive time to a VA site of care is greater than 60 minutes. Women who live more than 30 minutes from a facility are eligible to receive primary care in the community. [18]
- The Johnny Isakson and David P. Roe, MD Veterans Health Care and Benefits Improvement Act of 2020 (P.L.116-315), enacted on January 5, 2021, which aligns OWH to the VA Under Secretary for Health, mandates at least one WH-PCP at every VA Medical Center (VAMC), whose duties will include training in addition to clinical care, and one WH-PCP at every outpatient clinic. The Chief Officer of OWH will submit an annual report to Congress. The Act outlines a Women's Health Retrofit Initiative intended to address gaps and deficiencies in the women's health environment of care across all facilities. [8]

2.1 Demographic and Programmatic Distribution Analysis

Program Overview

Scope of Services

VHA's WH-PCPs provide foundational, gender-specific care to women Veterans in addition to standard primary care services. These foundational services include but are not limited to: [5]

- Routine gynecology care, including pelvic exams, cervical cancer screening, initial infertility screening, vaginal infection identification and treatment, contraception counseling and prescriptions, and peri- and post-menopausal care;
- Routine breast care, including breast examinations, evaluation, and management of breast symptoms, and ordering mammograms;

- Routine behavioral health and depression screening;
- Counseling women experiencing interpersonal violence or who experienced military sexual trauma; and
- Initial evaluation and treatment of common incontinence and associated genitourinary issues.

Since WH-PCPs perform routine gynecologic services, gynecologists in VHA typically provide evaluation and care for those cases outside the scope of primary care, including gynecological surgery. Gynecology services may include but are not limited to: [3] [5]

- General gynecology care, including infertility evaluation, testing, and treatment; pelvic floor issues including prolapse, pain, and urinary incontinence; complicated contraception issues; peri- and post-menopausal issues; vaginal infections; and reproductive endocrinology treatment;
- Specialty gynecology care, including urogynecology, gynecologic oncology, complex family planning, and gender-specific emergency care including abnormal bleeding or pelvic pain, pelvic inflammatory disease, ectopic pregnancy, and other early pregnancy complications;
- Gynecologic office procedures, including colposcopy, contraceptive implant insertion, endometrial biopsy, hysteroscopy, loop electrical excision procedure, percutaneous tibial nerve stimulation, and pessary fitting and insertion; and
- Gynecologic surgery, including hysterectomy (laparoscopic, robotic, and vaginal), myomectomy (laparoscopic, robotic, and hysteroscopic), cervical procedures, vulvar procedures, endometrial ablation, ovarian surgery (laparoscopic, robotic), tubal surgery (laparoscopic, robotic), pelvic reconstructive surgery, and other vaginal procedures.

In addition to primary and gynecology care, there are some areas of specialty care where there are conditions that are either unique to women, more common in women, or have unique manifestations in women. Examples of these specialties include neurology, cardiology, rheumatology, endocrinology, and gastroenterology. Specialty providers in these areas must be well versed in gender-specific aspects of care. [3]

Women's health services also include imaging and diagnostic procedures:

- Mammogram: Screening and diagnostic
- Advanced Breast Imaging: Ultrasound and magnetic resonance imaging (MRI)
- Breast biopsy: Stereotactic, core needle, and fine needle aspiration
- Dual-energy X-ray absorptiometry (bone densitometry)
- Pelvic: Ultrasound and MRI

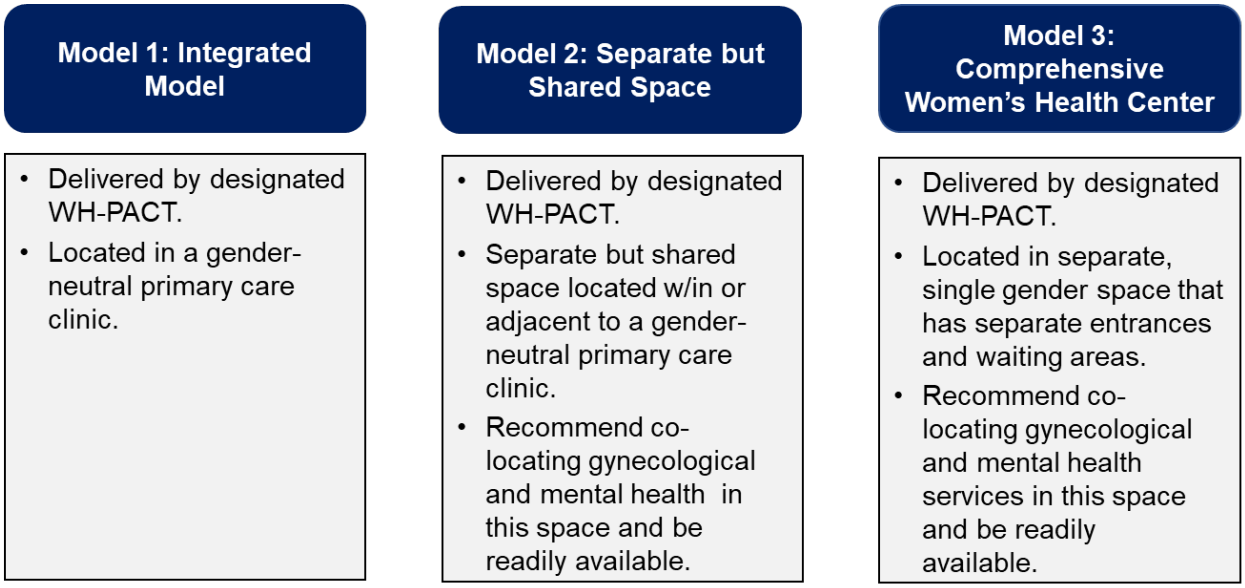
OWH and the VHA National Radiology Program (NRP) also ensure providers use evidence-based screening intervals for surveillance. These tests and their associated intervals include: [19]

- Mammography: Recommended annually for women ages 45 to 54, then biennially for women aged 55 and older, though women can elect to continue annual screens. Women with average risk may elect to start screening for breast cancer at age 40.
- Cervical cancer: Recommended every three years from ages 21 to 29 and every three to five years from ages 30 to 65. Clinical guidelines do not recommend cervical cancer screening for women over age 65.
- Osteoporosis: Recommended once for women aged 65 and older.
- Sexually transmitted infections: Test for gonorrhea and chlamydia every year between ages 18 and 24 for sexually active women.

Women's Health Models of Care Delivery

VHA Directive 1330.01(4), Healthcare Services for Women Veterans, defines three care models for delivering primary care to women Veterans that address space configuration and services provided. Each health care system may choose the model of care that best meet the needs of the women Veterans in their service area, and a facility may incorporate more than one model at a particular site. [5] All three models are equally effective for providing women's health care. The models of care and their definitions are in Figure 2 below. [5] WH-PCPs may practice in any of the three models of care. A Women's Health Provider's PACT team is known as WH-PACT so that all members of the PACT team maintain proficiency in women's health. WH-PACTs in Model 1 Clinics may be mixed. That is, a WH-PCP may often have a panel that includes both men and women Veterans. [5]

Figure 2: *Women's Health Models of Care Delivery*



Source: VHA Directive 1330.01(4) – Health Care Services for Women Veterans

Women's Telehealth

VA provides women's specific telehealth programs known as "TeleWomen's Health" which are defined as telehealth programs or clinics designed to treat women only. [20] TeleWomen's Health is offered at various locations, including VAMCs, Community-Based Outpatient Clinics, the Veteran's home, and non-VA sites of care, and offered through different modalities, which include Clinical Video Telehealth, VA Video Connect, Home Telehealth, and VA Mobile solutions. Care provided though TeleWomen's Health may include but are not limited to the following services: [20]

- Women's Primary Care
- Gynecology
- Women's Mental Health
- Women's Specific Pain Management
- Women's Social Work
- Women's Pharmacy
- Women's TeleMaternity Care Coordination

Demographics

Women Veteran Enrollee Growth and Market Penetration

In FY 2019, 1,369,864 women Veterans were eligible for VHA benefits and 805,650 enrolled, which represented 9.1% of total enrollees. [2] Although enrollee population projections for FY 2029 demonstrate that enrollee population will continue to be predominately men (87.8%), projections for the number of women Veteran enrollees show an increase of 32.5%, from 805,650 enrollees in FY 2019 to 1,067,799 enrollees in FY 2029, while the men Veteran enrollee population is projected to decrease 4.9% from 8,040,977 enrollees to 7,665,091 enrollees. [2] The projected increase of women enrollees reflect an increase in eligible women Veterans who enroll, which ranges from a 4.0% increase in VISN 6 to a 14.4% increase in VISN 12 from FY 2019 to FY 2029 (see Table 2 below).

Table 2: *FY 2019-29 Women Veteran Market Penetration by VISN*

VISN	FY 2019	FY 2029	10-Year Change
V01	52.9%	65.7%	12.7%
V02	53.5%	66.2%	12.7%
V04	52.5%	64.9%	12.4%
V05	60.6%	66.8%	6.2%
V06	58.8%	62.8%	4.0%
V07	64.2%	70.6%	6.4%
V08	64.8%	78.7%	13.9%
V09	57.8%	68.4%	10.7%
V10	54.8%	71.1%	16.4%

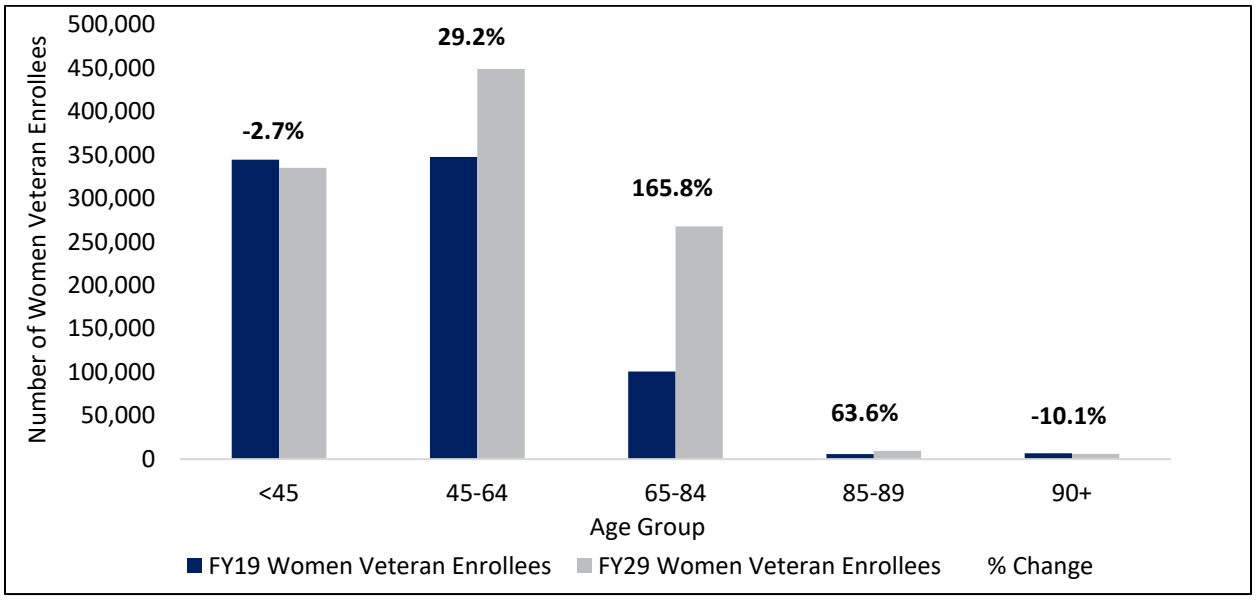
VISN	FY 2019	FY 2029	10-Year Change
V12	57.8%	72.2%	14.4%
V15	53.9%	63.7%	9.9%
V16	58.5%	66.3%	7.8%
V17	64.7%	72.3%	7.5%
V19	57.3%	66.5%	9.3%
V20	58.5%	68.4%	9.9%
V21	54.0%	61.7%	7.7%
V22	60.7%	70.6%	10.0%
V23	56.4%	69.2%	12.8%

Source: U.S. Department of Veteran Affairs. FY 2020 VA Enrollee Health Care Projection Model.

Women Enrollee Distribution by Age

As care needs for women change over their lifetimes, knowing the predominant age groups aids adequate and appropriate planning for their care. As shown in Figure 3, projections indicate women enrollees from ages 65 to 84 and 85 to 89 will experience the largest percentage increase by FY 2029. Women enrollees aged 65 to 84 will increase by 165.8%, from 100,775 to 267,890 and women enrollees aged 85 to 89 will increase by 63.6%, from 5,818 to 9,519. The 45 to 64 age group will remain the largest women cohort with more than 440,000 women Veteran enrollees.

Figure 3: *FY 2019-29 Women Veteran Enrollees by Age Group*



Source: U.S. Department of Veterans Affairs. FY 2020 VA Enrollee Health Care Projection Model.

Women Enrollees by Geography

In addition to age shifts within the enrollee population, women Veteran enrollment projections indicate a geographic shift by FY 2029. As shown in Table 3, projections for

women Veteran enrollees show steep growth across the country. VISN projections in the southeast and some southwest regions include substantial increases in enrollment, while some VISNs located in the northeast region will have smaller increases. Most notably, by FY 2029 VISNs 7, 9, and 17 have projected increases of 39.6% (from 77,780 to 108,544 women enrollees), 42.3% (from 31,083 to 44,235 women enrollees), and 42.6% (from 69,630 to 99,310 women enrollees), respectively.

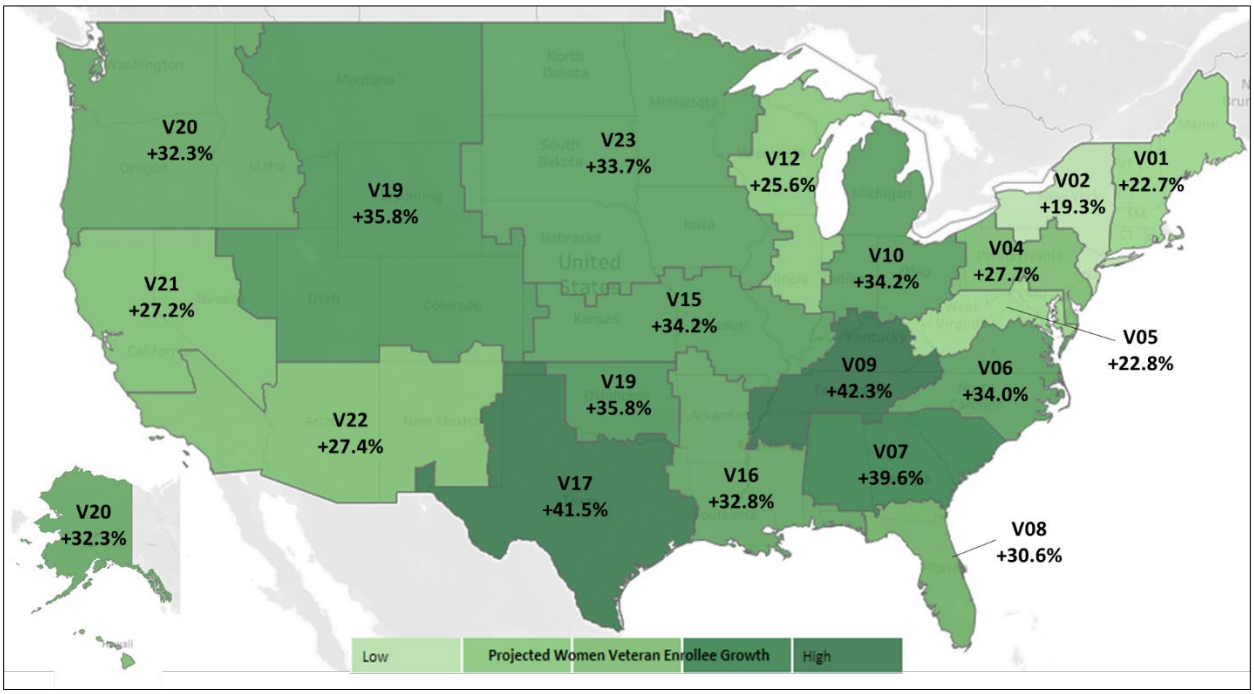
Table 3: *FY 2019-29 Women Veteran Enrollee Change by VISN*

VISN	FY 2019 Women Veteran Enrollees	FY 2029 Women Veteran Enrollees	% Change
V01	23,127	28,366	22.7%
V02	28,697	34,249	19.3%
V04	28,160	35,969	27.7%
V05	39,473	48,455	22.8%
V06	67,254	90,122	34.0%
V07	77,780	108,544	39.6%
V08	66,042	86,226	30.6%
V09	31,083	44,235	42.3%
V10	47,343	63,523	34.2%
V12	27,496	34,528	25.6%
V15	25,484	34,200	34.2%
V16	56,599	75,751	33.8%
V17	69,630	99,310	42.6%
V19	41,602	56,504	35.8%
V20	42,454	56,162	32.3%
V21	39,635	50,425	27.2%
V22	65,837	83,858	27.4%
V23	27,954	37,371	33.7%
Total	**805,650**	**1,067,799**	**32.5%**

Source: U.S. Department of Veterans Affairs. FY 2020 VA Enrollee Health Care Projection Model.

Figure 4 presents a representation of women enrollee growth across VISNs. Darker green areas are those VISNs with the highest percent projected growth between FY 2019 and FY 2029.

Figure 4: *FY 2019-29 Women Veteran Enrollee Change by VISN*



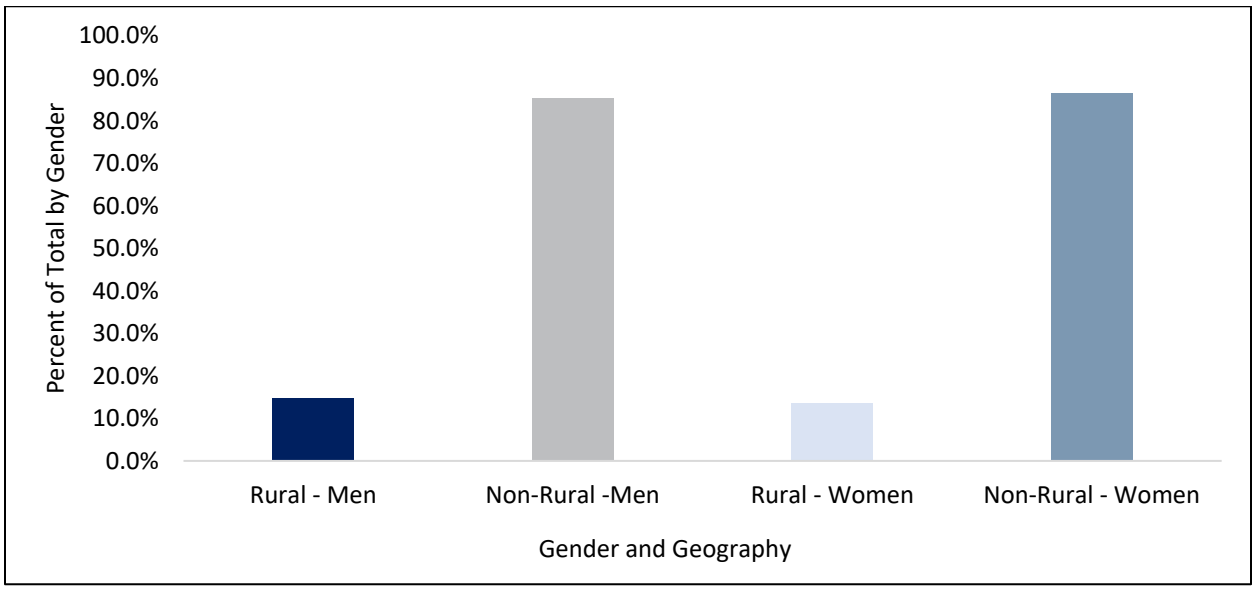
Source: U.S. Department of Veterans Affairs. FY 2020 VA Enrollee Health Care Projection Model.

Women Enrollees by Rurality

In FY 2019, 13.5% of women enrollees lived in rural areas (109,088 women enrollees) and 86.5% lived in non-rural areas (696,562 women enrollees). Although women enrollees living in rural areas comprise a small percentage of total women enrollees, these women Veterans face barriers to care due to distance to care and the dearth of providers willing to work in rural areas.

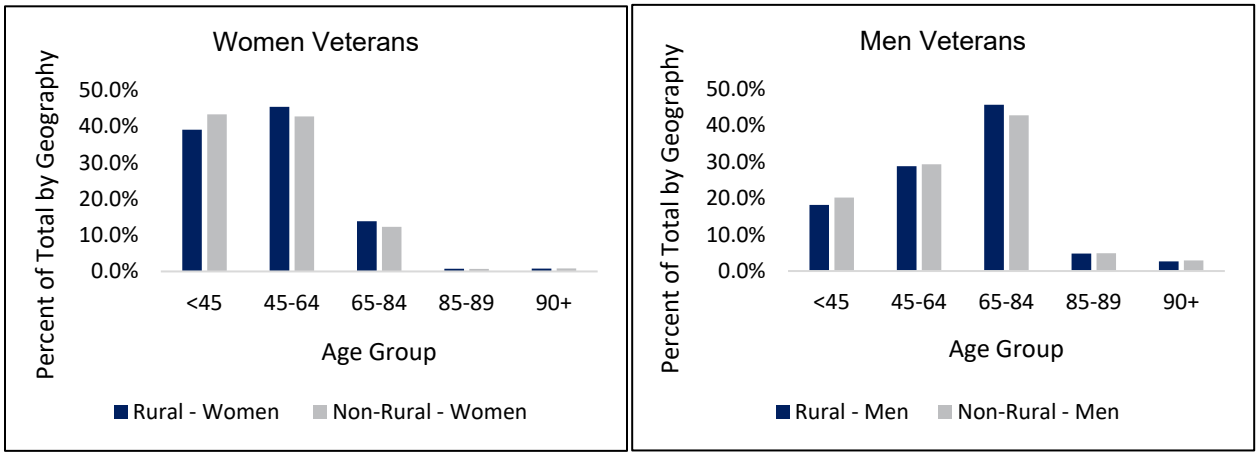
As shown in Figures 5 and 6 below, the largest men enrollee age group in FY 2019 was age group 65 to 84. Men and women enrollees are more concentrated in non-rural areas than rural areas. For those younger than age 64, proportionally more women enrollees reside in non-rural areas than men enrollees. More enrollees, both men and women, older than age 65 live in rural areas than non-rural areas.

Figure 5: *FY 2019 Distribution of Men and Women Enrollees by Geography*



Source: U.S. Department of Veterans Affairs. FY 2020 VA Enrollee Health Care Projection Model.

Figure 6: *FY 2019 Distribution of Women and Men Enrollees by Age Group and Geography*



Source: U.S. Department of Veterans Affairs. FY 2020 VA Enrollee Health Care Projection Model and VAST FY 2018 Q4.

2.2 Current VA Program Review and Analysis

Supply

Primary Care

The OWH's goal is to ensure that 85% of all women Veteran primary care users are assigned to WH-PCPs, and all women Veterans must be offered the option of seeing a WH-PCP. [3] Currently, over 550,000 women Veterans receive primary care from VA and 82.4% have assigned WH-PCPs. [3] Number of WH-PCPs and panel assignments display uneven distribution across VA. There is no clear trend between number of enrollees within a VISN and average panel sizes. As seen below in Table 4, VISN 7,

which has the largest women enrollee population (77,780 women enrollees), also has the largest average panel size of 1,291. However, VISN 15, which has one of the smallest women enrollee populations (25,484 women enrollees), has an average panel size of 1,092 women Veteran users per WH-PCP Full Time Equivalent Employee (FTEE). VISN 2 has the smallest average panel size of 472 women Veteran users per WH-PCP FTEE.

Table 4: *FY 2021 WH-PCP Panel Size in Comprehensive Women's Health Centers*

VISN	FY 2021 PCP FTEE	FY 2019 Panel (Women Users)	FY 2019 Panel (Women Enrollees)	User to FTEE (Average panel size)	Enrollee to FTEE (Average panel size)
V01	7.3	5,426	23,127	742	3,164
V02	11.6	5,467	28,697	472	2,476
V04	6.4	5,098	28,160	793	4,379
V05	8.8	6,896	39,473	785	4,491
V06	28.2	15,429	67,254	548	2,389
V07	15.8	20,343	77,780	1,291	4,935
V08	26.6	20,087	66,042	755	2,484
V09	9.7	6,184	31,083	638	3,204
V10	8.6	9,868	47,343	1,145	5,492
V12	7.7	6,919	27,496	894	3,552
V15	5.8	6,334	25,484	1,092	4,394
V16	19.1	15,528	56,599	811	2,957
V17	12.7	13,098	69,630	1,031	5,483
V19	11.1	6,675	41,602	600	3,738
V20	10.3	7,076	42,454	687	4,122
V21	13.6	7,155	39,635	525	2,908
V22	9.8	9,068	65,837	925	6,718
V23	7.7	4,136	27,954	535	3,616
Total	**220.9**	**170,787**	**805,650**		

Source: U.S. Department of Veterans Affairs. FY 2021 Women's Health Evaluation Initiative.

According to program policy, there should be at least two WH-PCPs at every primary care clinic location to ensure continuous coverage during regular clinic hours. [5] Table 5 below shows that 7.1% of locations do not have a WH-PCP onsite (Other Outpatient Sites are excluded from analysis).

Table 5: *Percent of Facilities without WH-PCP by Location Type*

Location Type	Percent of Locations w/o WH-PCP
Community Based Outpatient Clinic	7.0%
Health Care Center	10.0%
Multi-Specialty Community Based Outpatient Clinic	5.0%
VAMC	9.7%
Total without WH-PCP*	**7.1%**

*Data does not include Other Outpatient Services
Source: U.S. Department of Veterans Affairs. FY 2021 PACT Compass Cube and VAST FY 2018 Q4.

Table 6 below displays the number of facilities with and without WH-PCPs onsite. VISNs 7 and 17 have the highest percentage of facilities without WH-PCPs. VISN 7 had the largest women enrollee population in FY 2019 (77,780 women enrollees) and projected for FY 2029 (108,544 women enrollees, see Table 3 on page 16 above).

Table 6: *FY 2021 Percent of Facilities with WH-PCP by VISN*

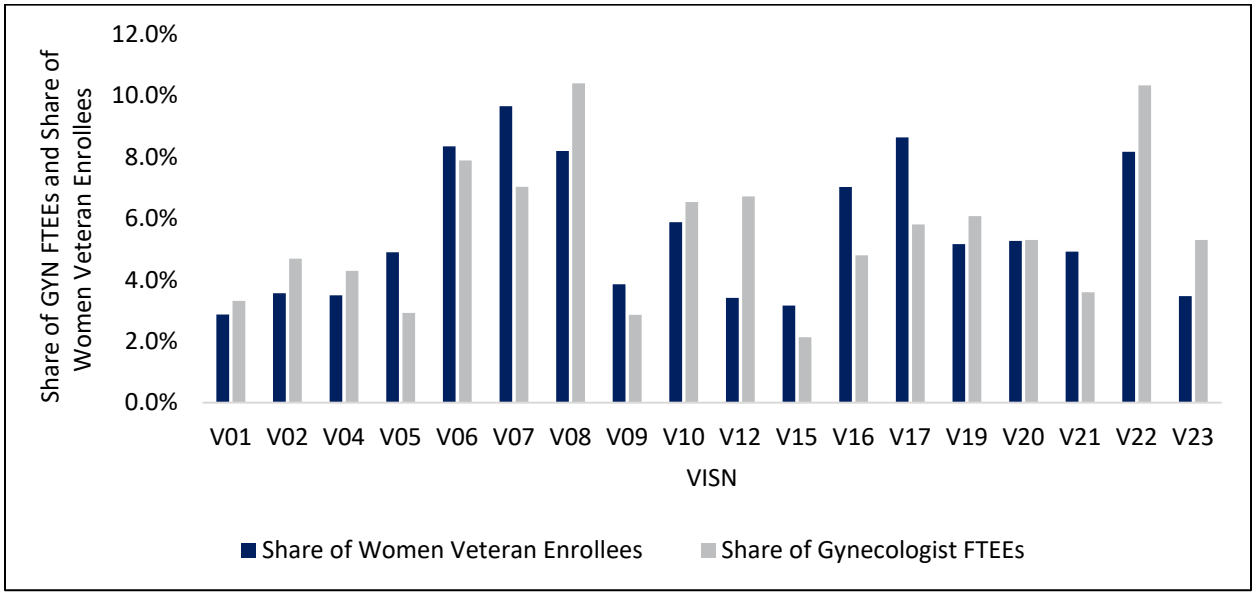
VISN	Total Number of Facilities With WH-PCP	Total Number of Facilities Without WH-PCP	Percent of Facilities Without WH-PCP
V01	48	1	2.0%
V02	54	8	12.9%
V04	47	1	2.1%
V05	28	1	3.4%
V06	37	3	7.5%
V07	48	13	21.3%
V08	56	3	5.1%
V09	44	5	10.2%
V10	69	0	0.0%
V12	46	1	2.1%
V15	55	3	5.2%
V16	57	2	3.4%
V17	35	13	27.1%
V19	46	3	6.1%
V20	44	2	4.3%
V21	49	3	5.8%
V22	61	3	4.7%
V23	59	2	3.3%
Total	**883**	**67**	**7.1%**

Source: U.S. Department of Veterans Affairs. FY 2021 PACT Compass Cube and VAST FY 2018 Q4.

Gynecology

The distribution of gynecology FTEEs varies across VISNs when compared with users. Ideally, gynecology FTEE share (ratio of VISN gynecology FTEE to total gynecology FTEE) would be proportional to the VISN share of women enrollees (ratio of VISN enrollee population to national women Veteran enrollee population), helping the distribution of gynecologists to meet each VISN's demand. VISNs 7, 8, 12, 16, and 17 have the greatest mismatches between share of gynecology FTEE and share of women enrollees (see Figure 7). VISN 8 has the highest share of gynecology FTEE (10.4%) but only 8.2% of total share of women enrollees. VISN 15 had the lowest share of gynecology FTEE (2.1%) but had 3.2% share of women enrollees.

Figure 7: *FY 2019 Women Veteran Enrollee Share and Gynecology FTEE Share*



Source: U.S. Department of Veterans Affairs. FY 2020 VA Enrollee Health Care Projection Model and Women's Health Evaluation Initiative.

Comprehensive Women's Health Centers

A Comprehensive Women's Health Center (WHC) provides "coordinated, high-quality, comprehensive care to women Veterans" provided by WH-PCPs and WH-PACT teamlets in a separate, women-specific space. [5] Many women Veterans prefer to receive care in a women-centric setting because it provides the opportunity to access women-specific services that are collocated in a safe and comfortable environment. [3] There are currently 85 designated Comprehensive WHCs (see Table 7). [3] Nine of these are in outpatient clinics and 76 are in VAMCs. Every VISN has at least one Comprehensive WHC, and the number of the Comprehensive WHCs varies widely (see Figure 8). The size of Comprehensive WHCs vary as well. For example, VISN 2 has a Comprehensive WHC with less than 1,000 women Veterans, while VISN 5 has a Comprehensive WHC that cares for over 10,000 women Veterans. [3] OWH's current standards for Comprehensive WHCs focus on locations and services but not women

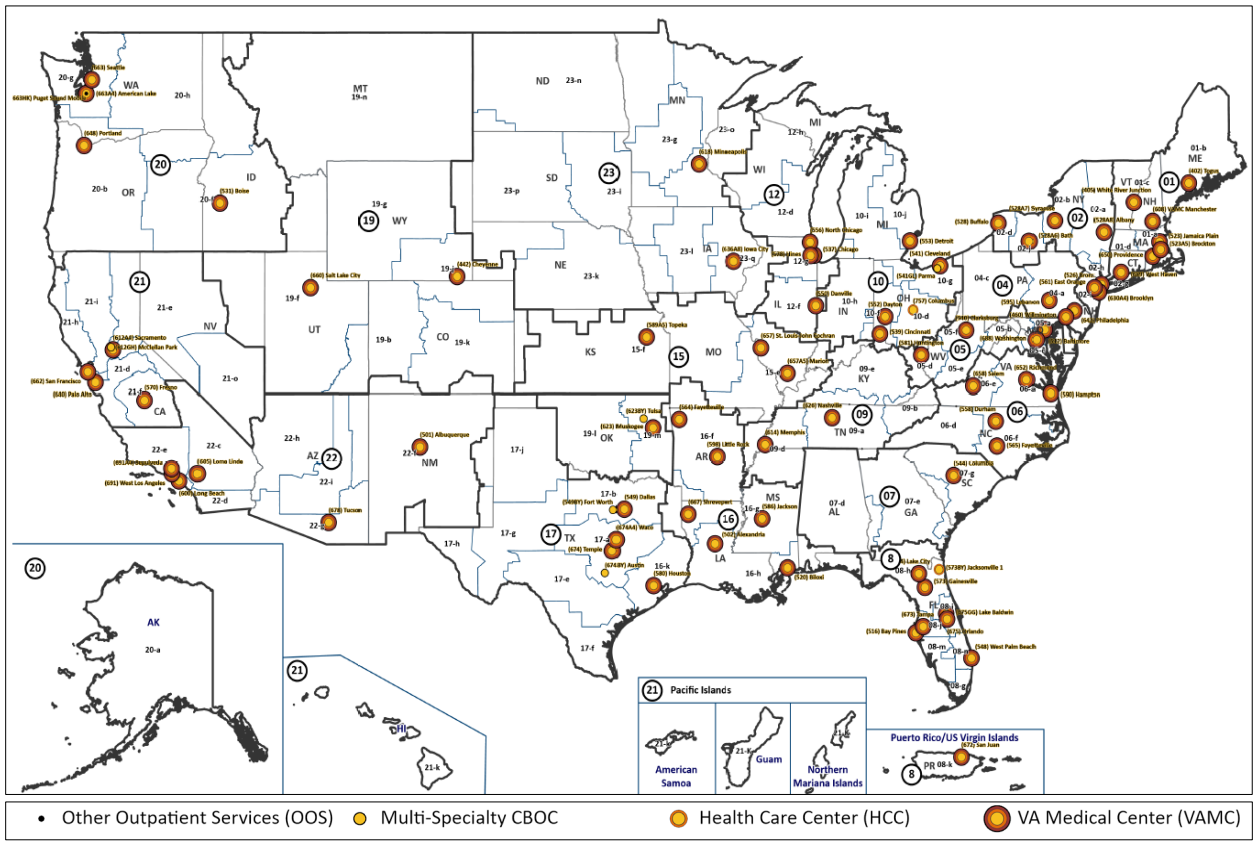
user or enrollee population, so facility leadership can establish a Comprehensive WHC regardless of size of women user or enrollee population. [3]

Table 7: *Number of Comprehensive WHCs by VISN*

VISN	Comprehensive WHC Sites
V01	7
V02	7
V04	3
V05	4
V06	5
V07	1
V08	9
V09	2
V10	6
V12	4
V15	3
V16	7
V17	5
V19	4
V20	5
V21	5
V22	6
V23	2
Total	**85**

Source: U.S. Department of Veterans Affairs. Clinical Inventory Women's Health Care Model Clinics by Facility.

Figure 8: *Comprehensive Women's Health Center Locations*

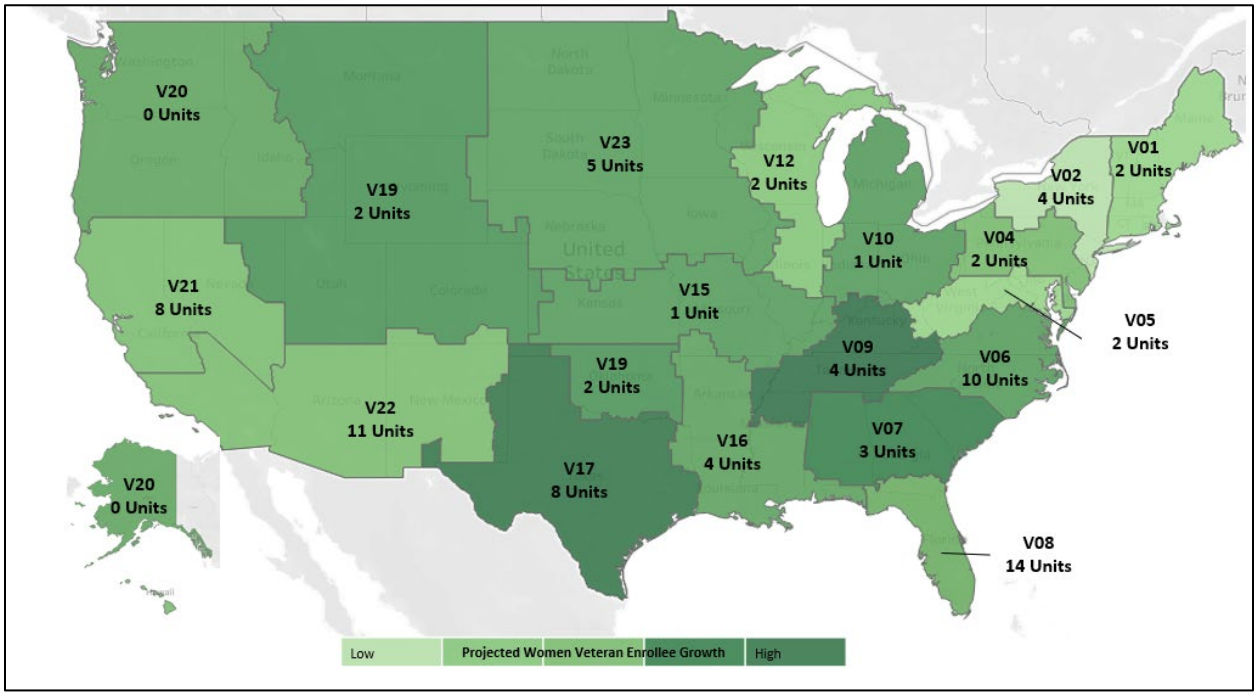


Source: Women's Health Clinical Inventory by Facility by Model 2021

Mammography

To support early detection and improved breast cancer outcomes for Veterans, VHA NRP's mission is to provide high-quality and accessible screening and diagnostic mammography. [21] As of May 2021, VA had 69 accredited and certified mammography programs (two programs are undergoing reorganization) across 17 of the 18 VISNs. [21] There are 83 mammography units across VA, as some programs have more than one mammography unit (see Figure 9). [21] In FY 2019, VISN 8 had the greatest number of mammography units and mammograms performed. Conversely, VISN 20 exclusively uses community care providers for mammography due to supply and high quality of commercial resources.

Figure 9: *Number of Mammography Units by VISN*

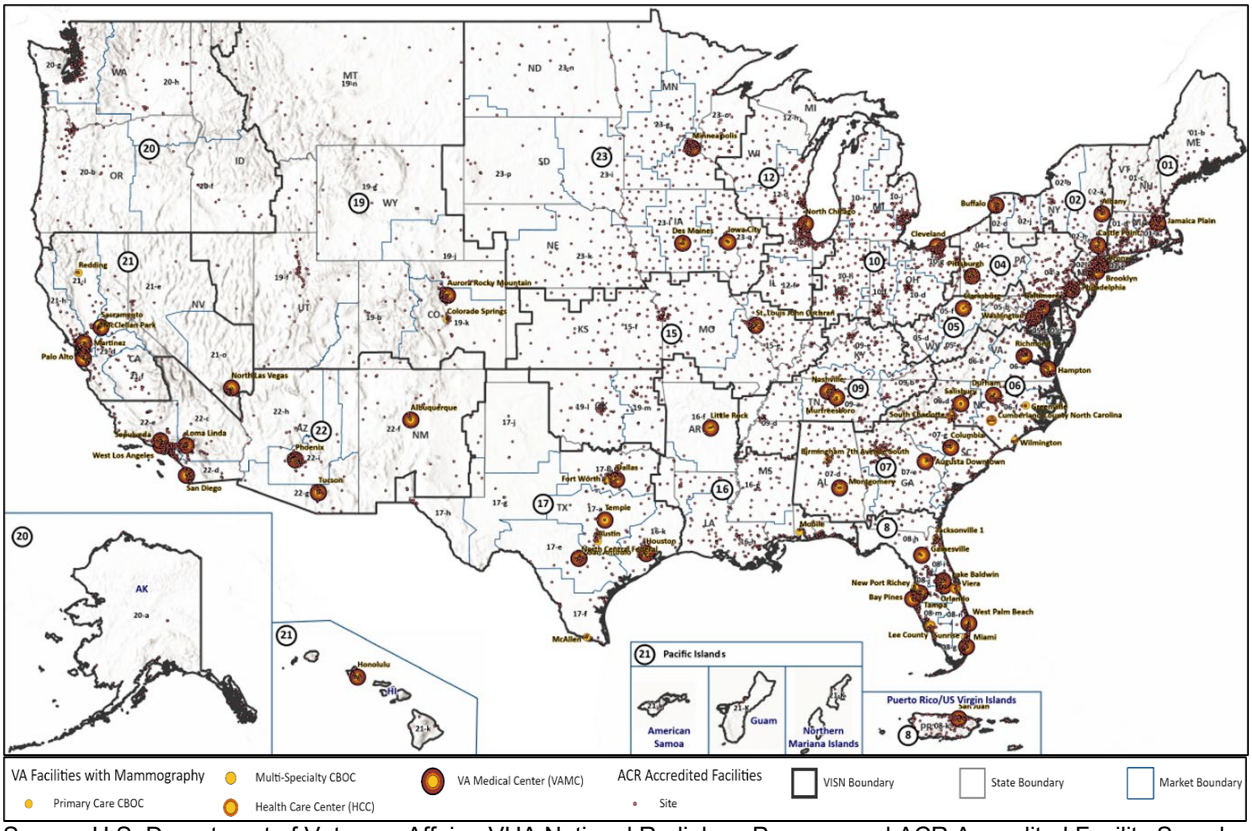


*Hawaii, located in VISN 21, has one mammography unit.
** Puerto Rico, located in VISN 08, has one mammography unit. (Not shown on map).
Source: U.S. Department of Veterans Affairs. VHA National Radiology Program FY 2021.

Commercial and VA mammography coverage differs by geography and rurality. Figure 10 below shows dense coverage in the eastern United States with less dense coverage in the western region of the country. The following states do not have VA mammography programs: Maine, Vermont, New Hampshire (VISN 1), Kentucky (VISN 9), Michigan and Indiana (VISN 10), Wisconsin (VISN 12), Kansas (VISN 15), Louisiana and Mississippi (VISN 16), Oklahoma, Wyoming, Utah, Montana (VISN 19), Alaska, Idaho, Oregon, Washington (VISN 20), and Nebraska, South Dakota, and North Dakota (VISN 23). However, there are sites accredited by the American College of Radiology (ACR) located in the most populous regions, which means women Veterans can use community care for their mammography.

Management of and planning for VHA mammography programs should include local market supply. Forty-seven of the 96 VHA markets have active mammography programs, and all of these markets also have ACR accredited mammography programs within 60-minute drive times from VHA facilities. The number of ACR-accredited community programs range from eight in Market 16-f (Little Rock, Arkansas) to 710 in Market 2-h (Bronx and Brooklyn, New York). These volumes are commensurate with local population. VISN 20 does not have any VHA mammography programs by design. VISN 20 leadership chooses to outsource all their mammograms to the community.

Figure 10: *ACR and VA Mammography Sites*



Source: U.S. Department of Veterans Affairs. VHA National Radiology Program and ACR Accredited Facility Search 2021.

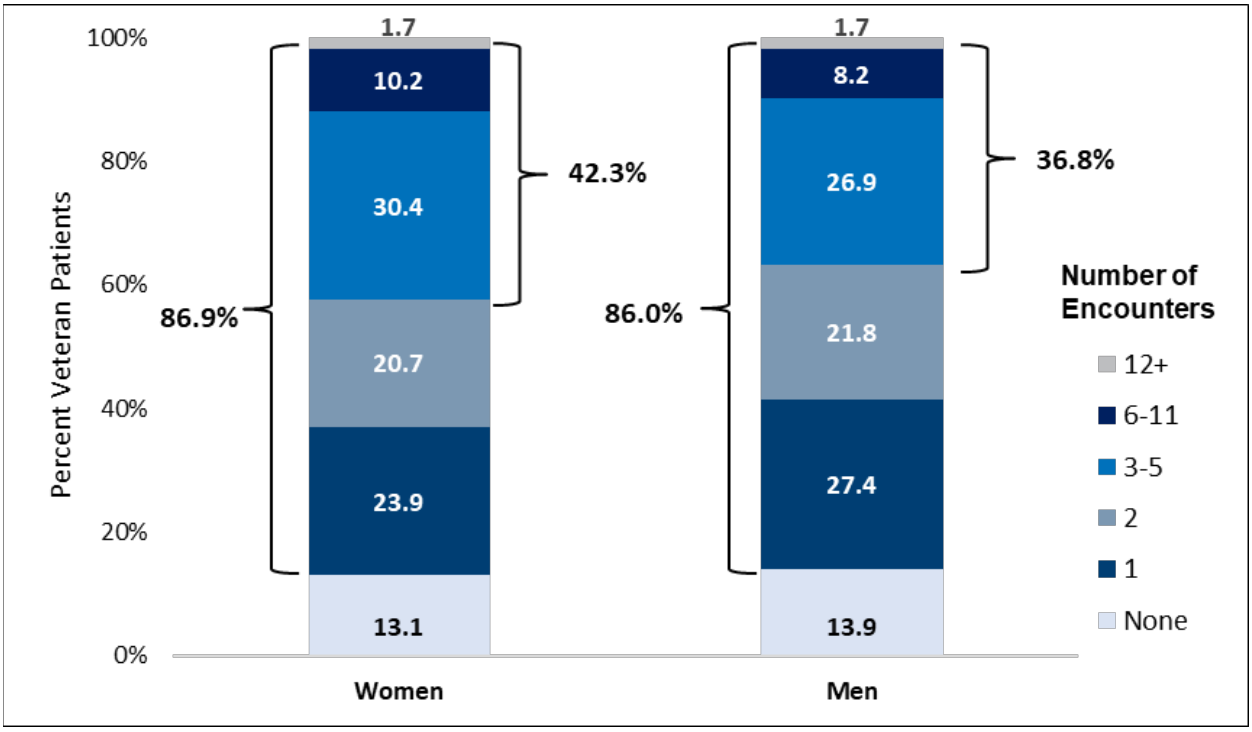
Demand

Primary Care Utilization

Because the number of men Veteran users is much higher than women Veteran users, their total utilization of care is higher. However, women Veteran users have *proportionally* greater primary care encounter volumes than men Veteran users.

As shown in Figure 11, men and women Veterans had similar percentages of primary care encounters in FY 2019 (women: 86.9%; men: 86.0%). However, the percentage of women Veterans with three to five primary care encounters in FY 2019 exceeded men Veterans with three to five primary care encounters by 3.5% (30.4% vs. 26.9%). Similarly, the percentage of women Veterans with six to 12 primary care encounters in FY 2019 exceeded men Veterans with the same number of primary care encounters by 2.0% (10.2% vs. 8.2%). Among women Veterans who used primary care in FY 2019, the average number of encounters was 3.2. Among men Veterans who used primary care in FY 2019, the average number of primary care encounters was 3.0.

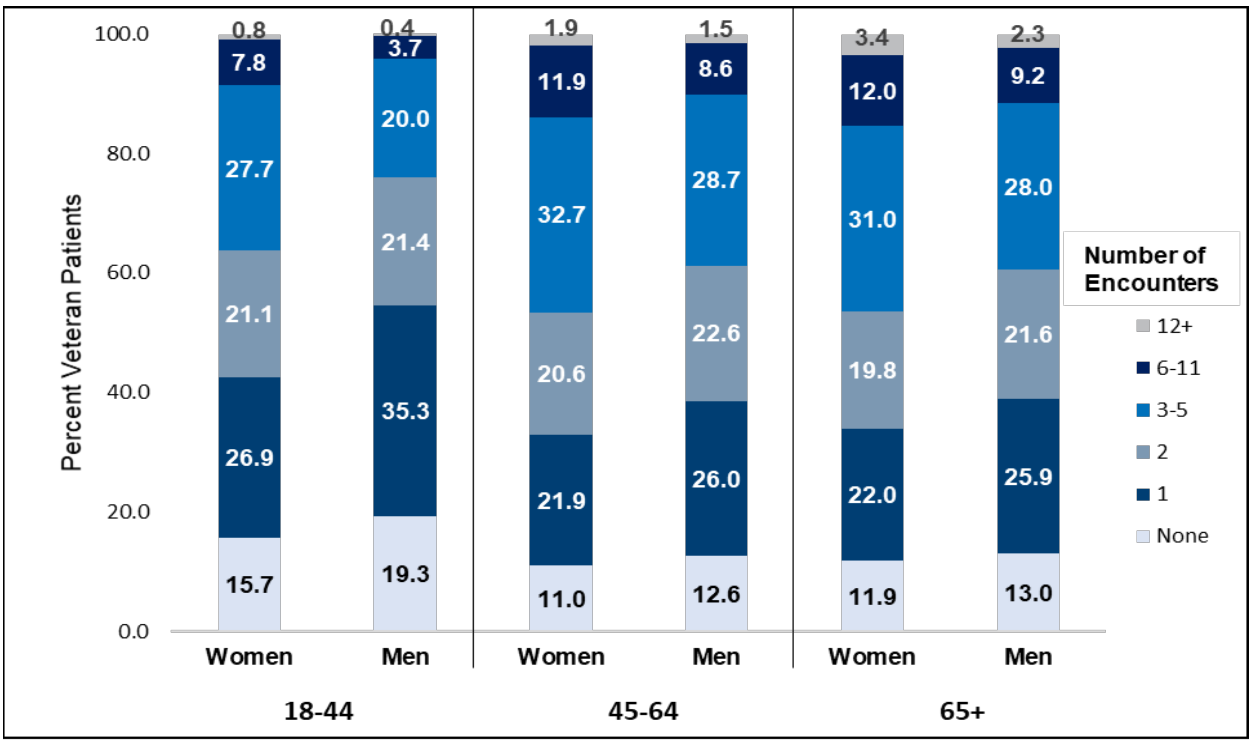
Figure 11: *FY 2019 Total Primary Encounters Among Women and Men Veteran Users*



Source: U.S. Department of Veterans Affairs. Women's Health Evaluation Initiative Master Database FY 2019.

Primary care utilization patterns differ by age for men and women Veterans. As shown in Figure 12, the percentage of women Veterans with six or more encounters in FY 2019 exceeded men Veterans across all ages, with the largest difference for women Veterans between ages 18 and 44 (8.6% women to 4.1% men). The percentage of men and women Veterans with greater than three encounters per year levels remains constant between ages 45 and 64 (46.5% women to 38.8% men) and older than 65 years (46.4% women to 39.5% men).

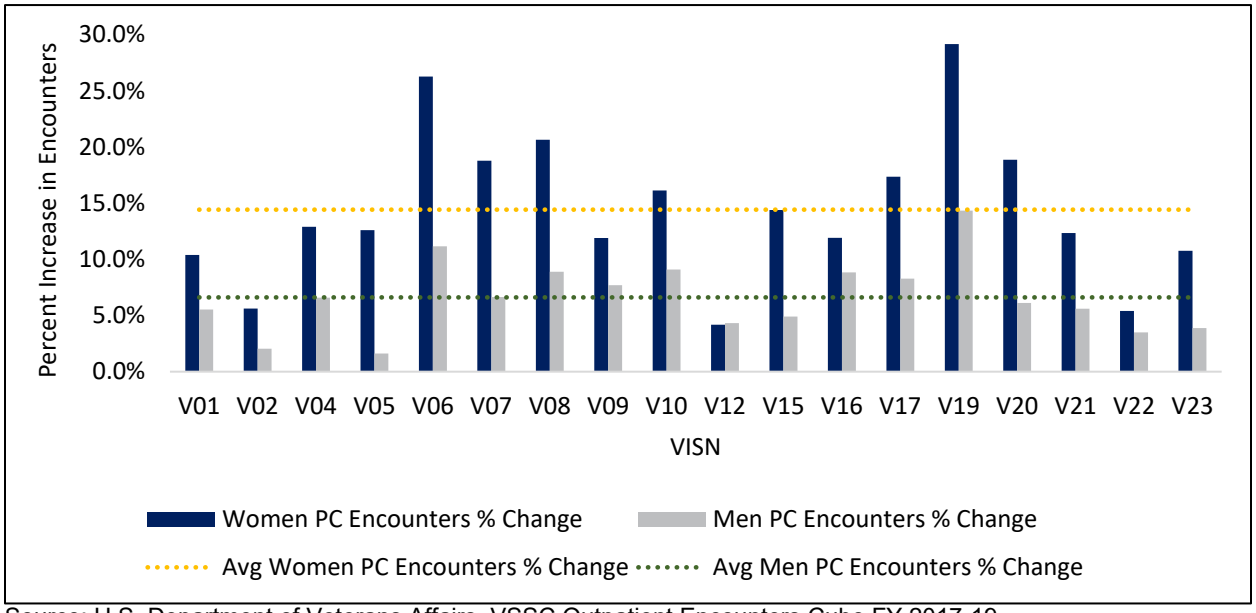
Figure 12: *FY 2019 Total Primary Care Encounters Among Women and Men Veteran Users by Age*



Source: U.S. Department of Veterans Affairs. Women's Health Evaluation Initiative Master Database FY 2019.

As shown in Figure 13 below, between FY 2017 and FY 2019, primary care encounters increased more rapidly for women Veteran users than men Veteran users across VISNs except VISN 12, which is showing comparable growths for all Veteran users. Women Veterans' primary care encounters increased 15.4% from 1,269,194 encounters to 1,464,729 encounters while men Veterans' primary care encounters increased 6.9% from 12,247,815 encounters to 13,093,416 encounters. VISN 6 has the most distinct percent change difference in primary care encounters between women Veterans (26.3%) and men Veterans (11.2%).

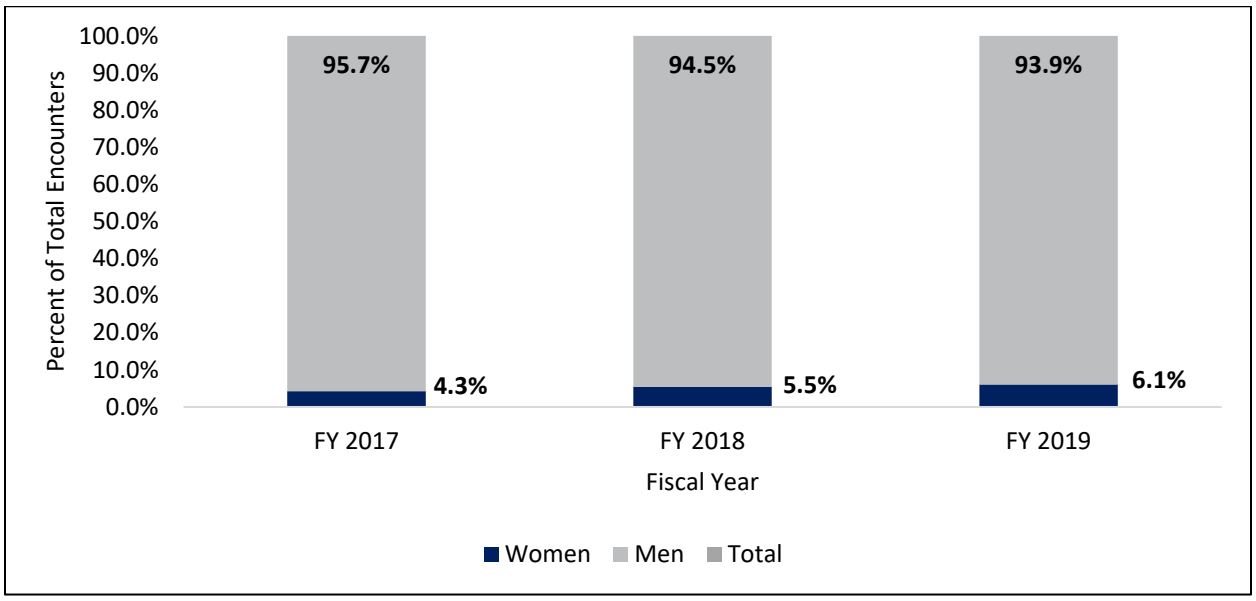
Figure 13: *FY 2017-19 Primary Care Encounters Percent Change by Gender*



Source: U.S. Department of Veterans Affairs. VSSC Outpatient Encounters Cube FY 2017-19.

Telehealth, which has experienced exponential growth as a modality for primary care delivery, could offer several benefits to women Veterans including the expansion of access to care. Telehealth encounters for women Veteran users (under stop code 323-primary care/medicine) in a mixed panel clinic (for both men and women Veterans) increased 271.5% from 3,449 encounters in FY 2017 to 12,814 encounters in FY 2019. Similarly, telehealth encounters for men Veteran users increased 156.5% from 77,405 encounters in FY 2017 to 198,527 encounters in FY 2019. While total encounters for men Veteran users increased, the relative proportion of encounters decreased for men compared to women Veteran users in a mixed panel clinic for primary care (see Figure 14 below).

Figure 14: *FY 2017-19 General Primary Care Telehealth Encounters (Stop Code 323)*



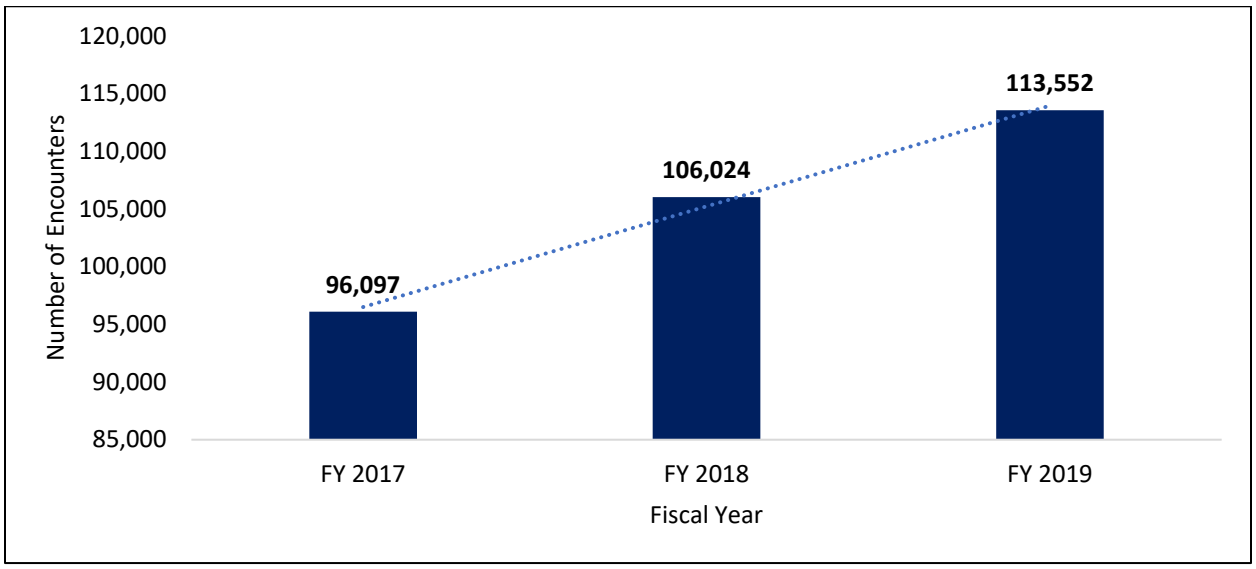
Source: U.S. Department of Veterans Affairs. VSSC Outpatient Encounters FY 2017-19.

In an environment dedicated solely to women's primary care, the increased demand for telehealth services was even more pronounced. Telehealth encounters for women Veteran users in a comprehensive women's primary care clinic (stop code 322) increased from 177 encounters in FY 2018 to 2,089 encounters in FY 2019, a total increase of 1,080%. The data showed zero telehealth encounters for comprehensive women's primary care clinic in FY 2017.

Gynecology Utilization

Between FY 2017 and FY 2019, demand for gynecological services steadily increased from 96,097 encounters to 113,552 encounters, a total increase of 18.2% (see Figure 15 below).

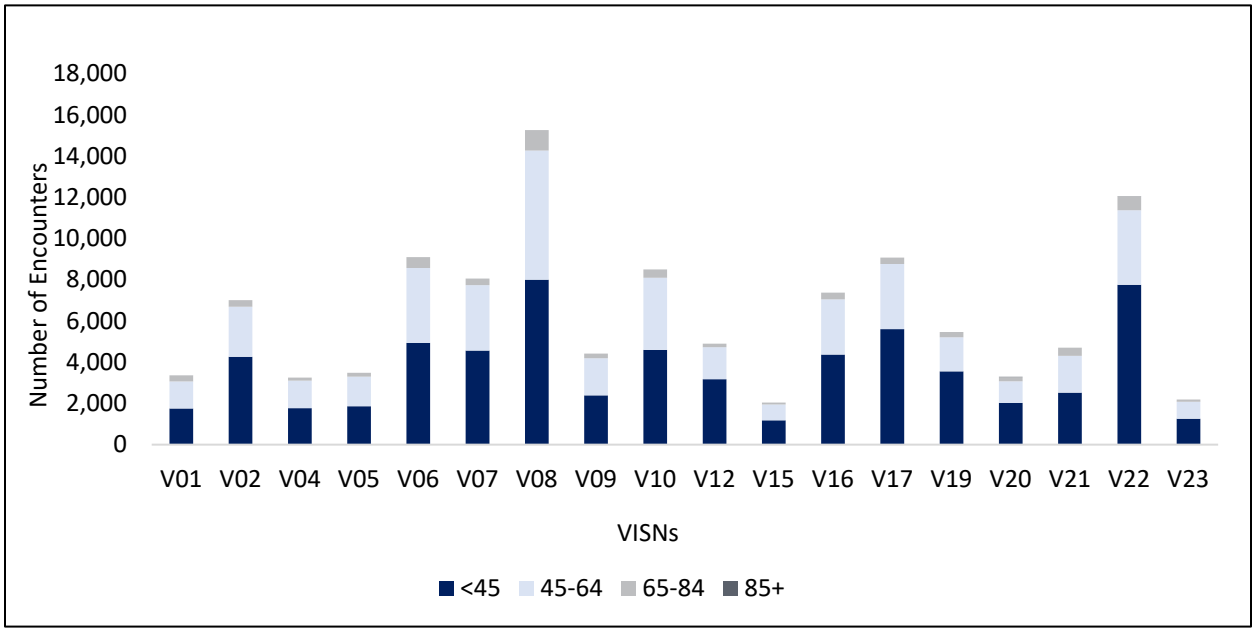
Figure 15: *FY 2017-19 Women Veteran Outpatient Gynecology Encounters*



Source: U.S. Department of Veterans Affairs. VSSC Outpatient Encounters Cube FY 2017-19.

In FY 2019, women Veteran enrollees under age 45 utilized gynecology services more than other age groups, accounting for over 52% of encounters within each VISN as shown in Figure 16 below. Women Veteran enrollees under age 65 comprise 94.7% of FY 2019 gynecology encounters, while women Veteran enrollees over age 65 only accounted for 5.3% of gynecology encounters.

Figure 16: *FY 2019 Gynecology Encounters by Age Group*

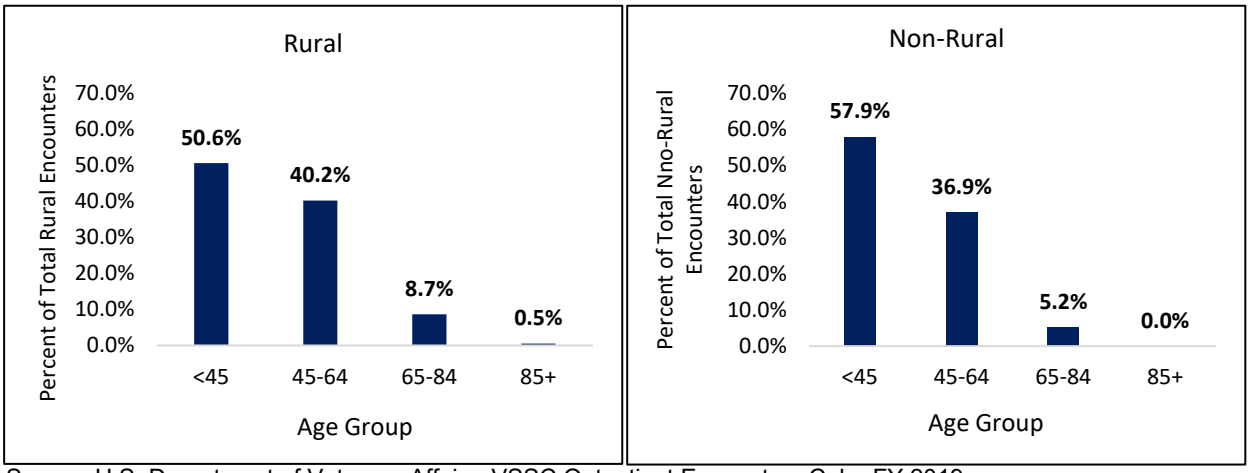


Source: U.S. Department of Veterans Affairs. VSSC Outpatient Encounters Cube FY 2019.

Utilization by age does not vary across rural and non-rural geographies for gynecological services. Most women Veteran users who had gynecology encounters in FY 2019 were under age 64 (94.7%, or 107,581 encounters). In FY 2019, more women Veteran users who have had at least one gynecology encounter and are younger than

age 45 lived in non-rural areas. In FY 2019, more women Veteran gynecology users older than age 45 lived in rural areas (see Figure 17 below).

Figure 17: *FY 2019 Women Veteran Gynecology Encounters by Geography by Age*

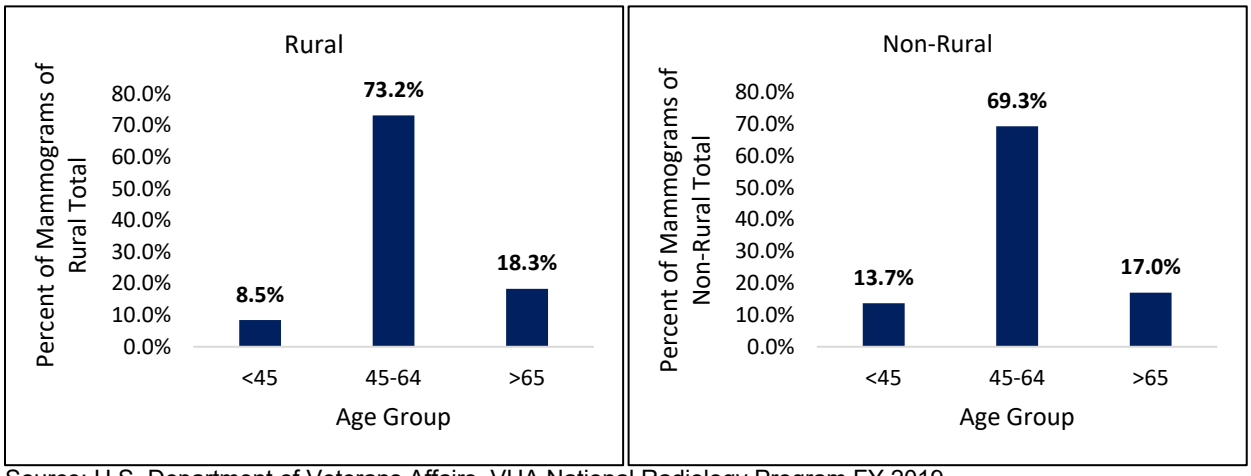


Source: U.S. Department of Veterans Affairs. VSSC Outpatient Encounters Cube FY 2019.

VA Mammography Utilization

Currently, VHA mammography facilities capture 35% of potentially eligible women Veterans. [21] The majority of women Veterans receive mammograms in the community rather than through VA on-site mammography. As shown in Figure 18 below, mammography demand is highest for women Veterans between ages 45 and 64 in both rural and non-rural areas. Women Veterans who are younger than age 45 utilized more mammography services in non-rural areas compared to rural areas. Overall, women Veterans over the age of 65 used less mammography compared to those between ages 45 and 64, but more than those younger than age 45.

Figure 18: *FY 2019 In-House VHA Mammography Program Utilization by Geography and by Age*

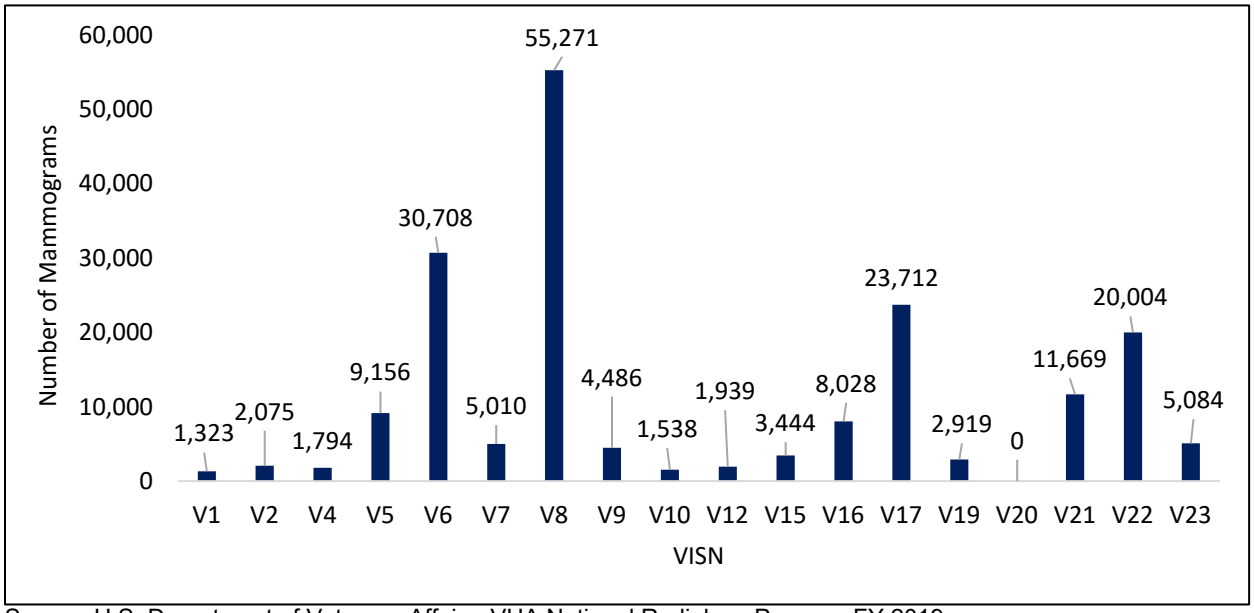


Source: U.S. Department of Veterans Affairs. VHA National Radiology Program FY 2019.

Figure 19 below shows mammography utilization on the VISN level, which provides a summary of in-house VHA mammography program utilization across VISNs. As is seen,

this utilization varies widely across VISNs. In FY 2019, VISN 8 performed the most mammograms (55,271) while VISN 1 performed the least mammograms (1,323).

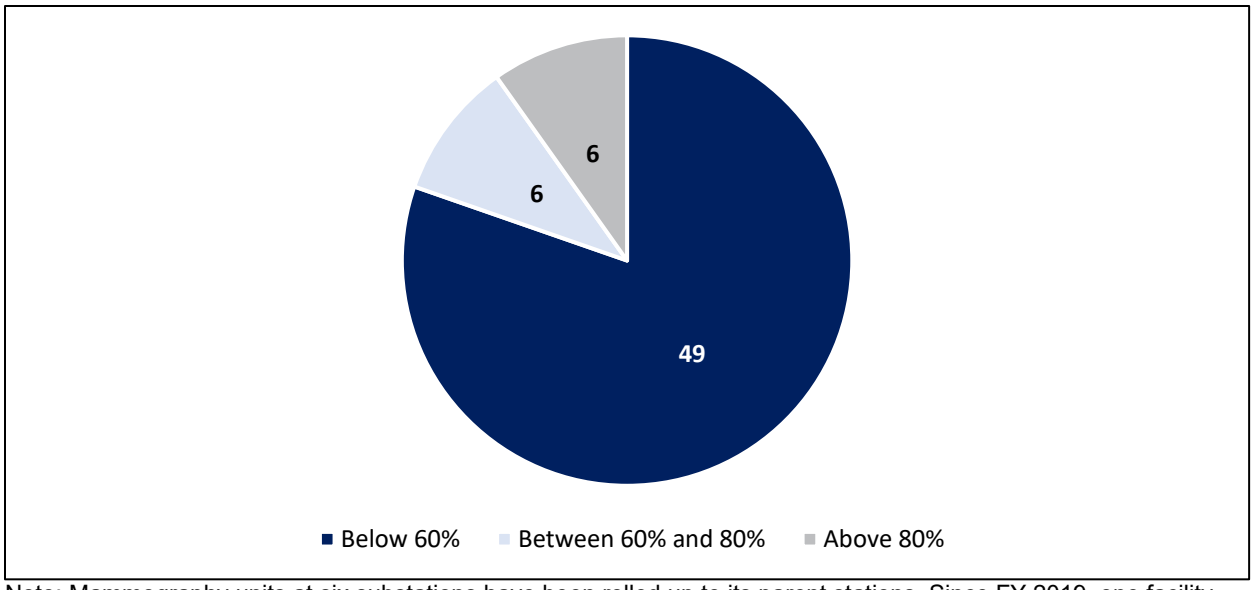
Figure 19: *FY 2019 In-House VHA Mammography Program Utilization by VISN*



Source: U.S. Department of Veterans Affairs. VHA National Radiology Program FY 2019.

There is greater variability in mammography service use at the facility level than at the VISN level. Figure 20 below shows the distribution of mammography percent utilization by facility. A 2006 GAO report noted that the number of U.S. mammograms performed per machine is substantially lower than the potential capacity of 6,000 mammograms per unit per year. [22] In VHA, forty-nine VA facilities (80.3%) performed less than 60% of the potential capacity of 6,000 per mammography unit per year. The remaining 12 facilities (19.7%) performed above 60% maximum capacity per mammography unit, and approximately 10% of facilities performed over 80% of the maximum capacity per mammography unit. Of the 61 facilities with mammography units (some substations are included in parent stations to correctly account for utilization), there is only one rural facility. The remaining 60 facilities that offer mammography are in non-rural areas.

Figure 20: *FY 2019 Number of Facilities that Offer Mammography by Utilization and Capacity of Mammography Unit*

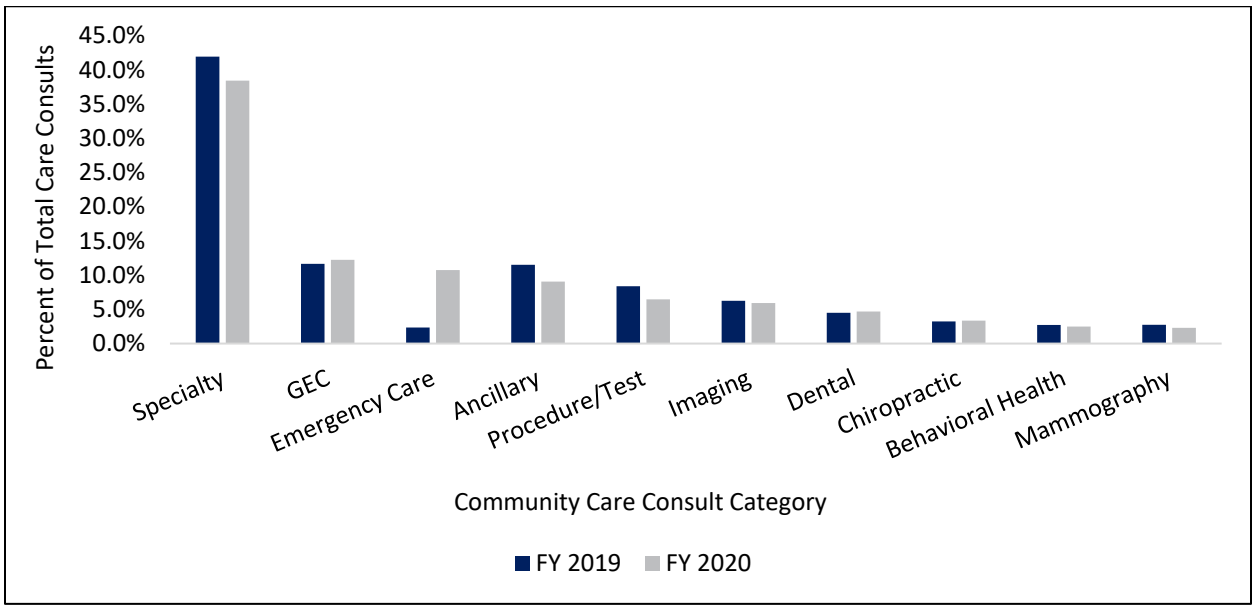


Note: Mammography units at six substations have been rolled up to its parent stations. Since FY 2019, one facility with a mammography unit has closed (688) and one facility with a mammography unit has opened (740).
Source: U.S. Department of Veterans Affairs. VHA National Radiology Program FY 2019.

Community Care Utilization

Between FY 2019 and FY 2020, women's health community care consults increased by 17.1%, from 4,806,538 to 5,628,077 consults. This increase in community care consults may reflect implementation of MISSION Act standards, which mandate that specialty care, including mammography, must be available within a 60-minute drive time from a Veteran's home. Additionally, the increase in emergency care consults may reflect the added benefit for eligible Veterans to access in-network urgent care services in the community.

Figure 21: *FY 2019 and FY 2020 Top Ten Community Care Categories*



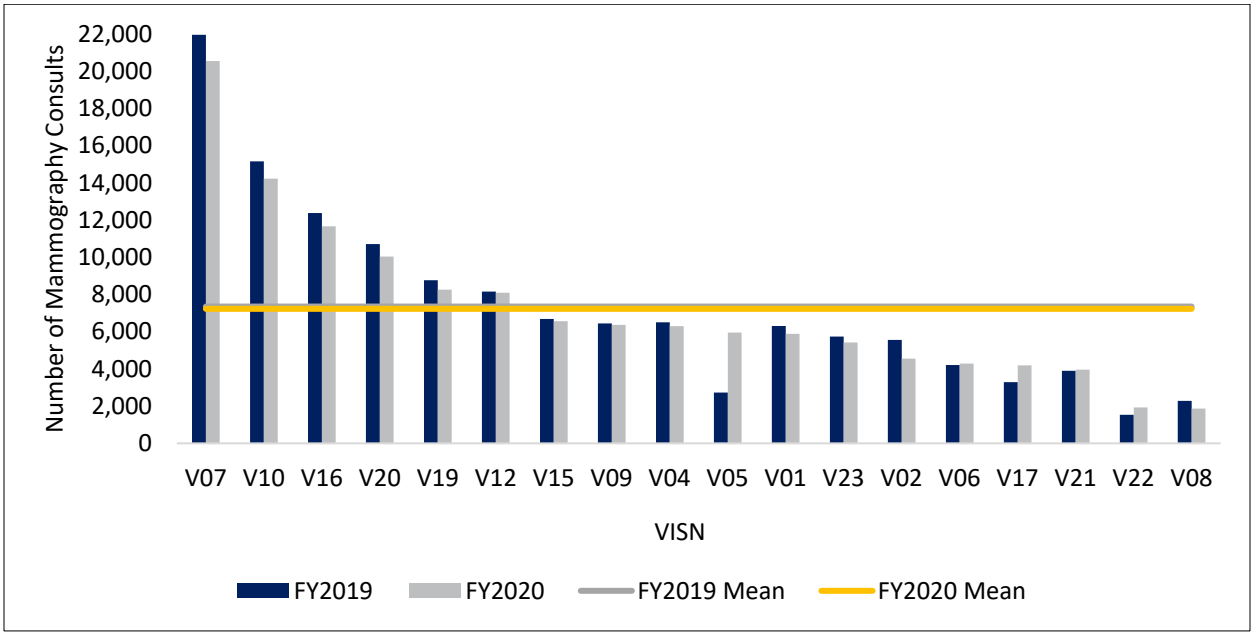
Source: U.S. Department of Veterans Affairs. Community Care Consult Report FY 2019-21.

Community Care Utilization - Mammography

Mammography represents the largest number and percentage of all community care consults created for women Veterans (20.2% in FY 2019 and 17.7% in FY 2020), and a significant majority of all women-specific consults (77.7% in FY 2019 and 76.8% in FY 2020). The VHA NRP recognizes that for women that live more than a 60-minute drive from where they reside to a VA facility, going to the community for ACR-accredited mammography is a good option. [21] Additional considerations include the number of women enrollees associated with a facility and the availability of high-quality mammography in a community.

In FY 2019 the mean for community care mammography consults for women Veterans across all VISNs was 7,350, and 7,227 in FY 2020. The 1.7% decrease in mean values between FY 2019 and FY 2020. VISNs 7, 10, 16, and 20 had the highest number of breast imaging community care consults and all experienced increases between FY 2019 and FY 2020 (see Figure 22). VISNs 7, 16, and 17 also have the largest number of women Veterans. VISN 20 currently does not have VA-based mammography because they are satisfied with the quality and availability of community-provided mammography.

Figure 22: *FY 2019-20 Mammography Community Consults*

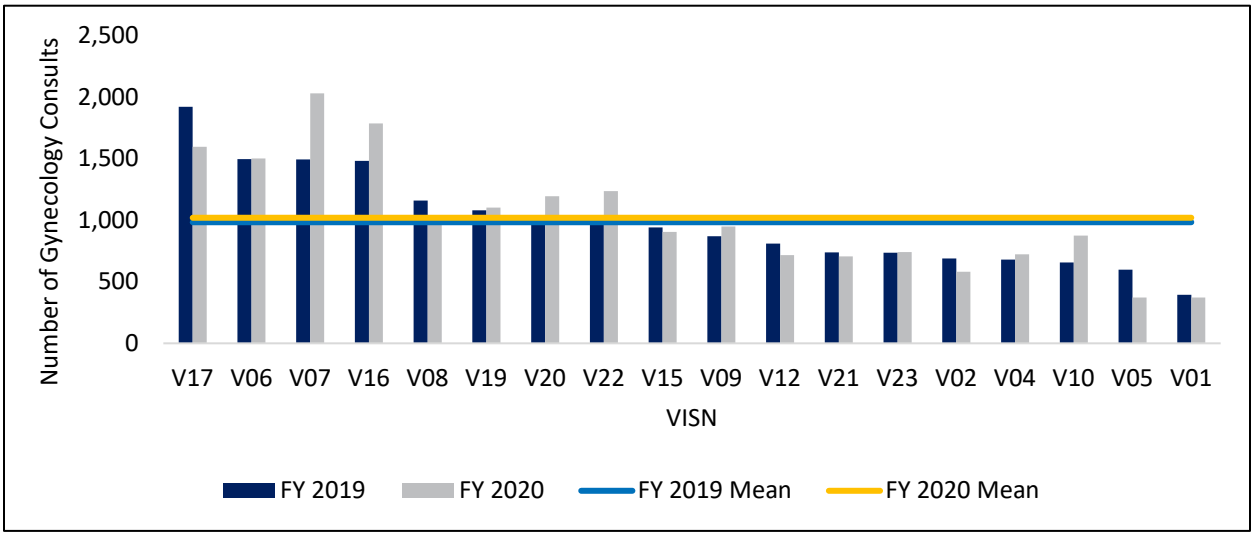


Source: U.S. Department of Veterans Affairs. Community Care Consult Reports FY 2019-20.

Community Care Utilization – Gynecology

The availability of gynecology services varies across VISNs, therefore some VISNs send proportionally more women Veterans to the community for gynecology care than others. Between FY 2019 and FY 2020, community care consults for gynecology increased 3.7% across all VISNs (from 17,691 consults to 18,345 consults). VISNs 6, 7, 8, 16, 17, 19, and 20 accounted for over 50% of overall gynecology community care consults in FY 2019 and FY 2020. Total gynecology community care consults account for 2.5% of all community care consults for women Veteran users in FY 2020.

Figure 23: *FY 2019-20 Gynecology Community Consults*

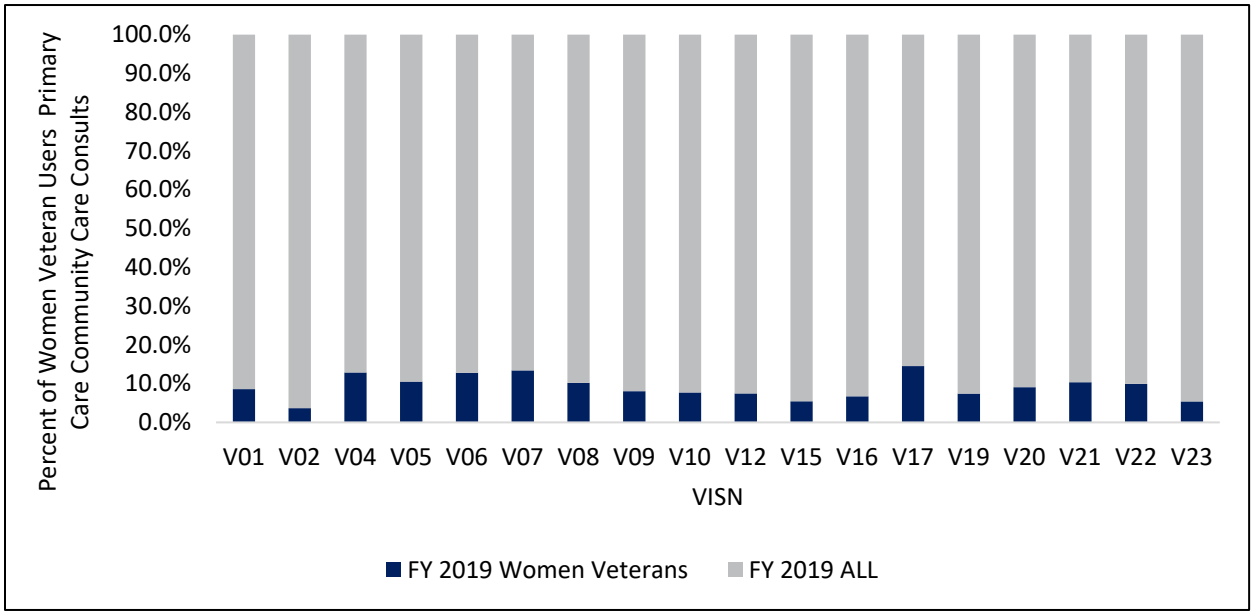


Source: U.S. Department of Veterans Affairs. Community Care Consult Reports FY 2019-20.

Community Care Utilization – Primary Care

Community care consults for primary care comprised 1.7% of all community care consults in FY 2019 and 1.5% in FY 2020 for both men and women Veteran users combined. The percent of women Veteran users seeking primary care in the community is commensurate with the number of women Veterans in the system (see Figure 24 below), however, the overall percent of primary care consults for women Veteran users is higher than the overall percent nationally. Except for a few VISNs that have a larger number of women Veterans and are growing more quickly, such as VISNs 6 and 7, women Veterans are not large consumers of primary care in the community.

Figure 24: *FY 2019 Percent of Women Veteran Users Primary Care Community Care Consults*



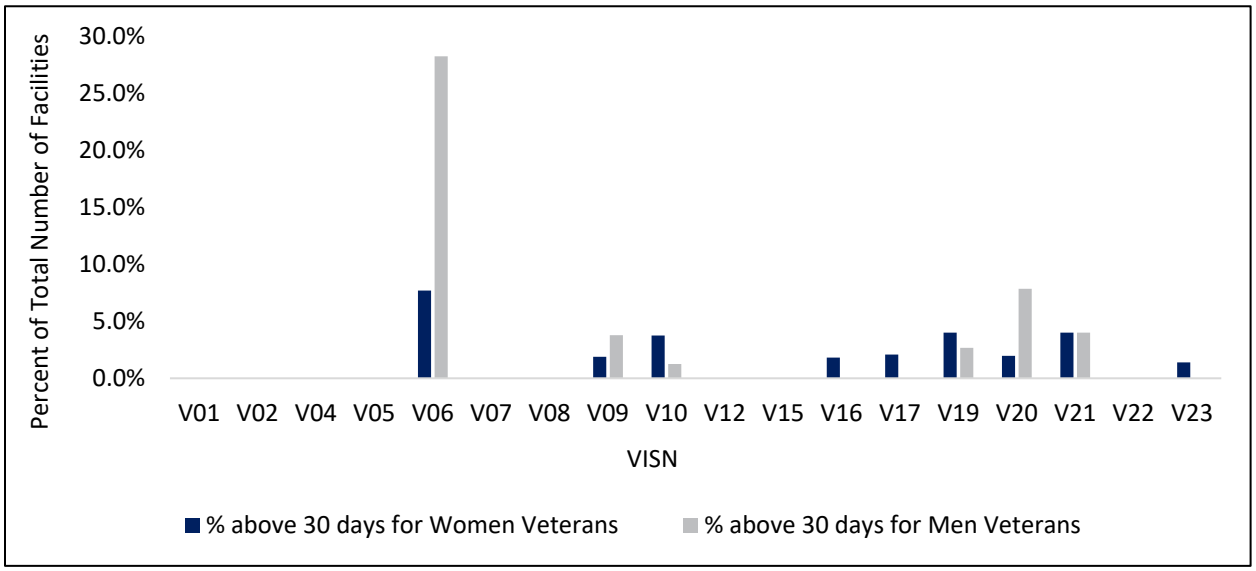
Source: U.S. Department of Veterans Affairs. Community Care Consult Reports FY 2019-20.

Access

Wait Times and Third Next Available Appointment

Across VA, there are more VISNs with facility wait times greater than 30 days for new primary care appointments for women Veteran users than for men Veteran users, suggesting that at the VISN level, men Veteran users may have more timely access to primary care than women Veteran users. Figure 25 below shows the percentage of facilities within each VISN that have wait times over 30 days for women's new primary care appointments. VISNs 6, 19, and 21 have the highest percentage of facilities with average wait times longer than 30 days for women's new primary care appointments.

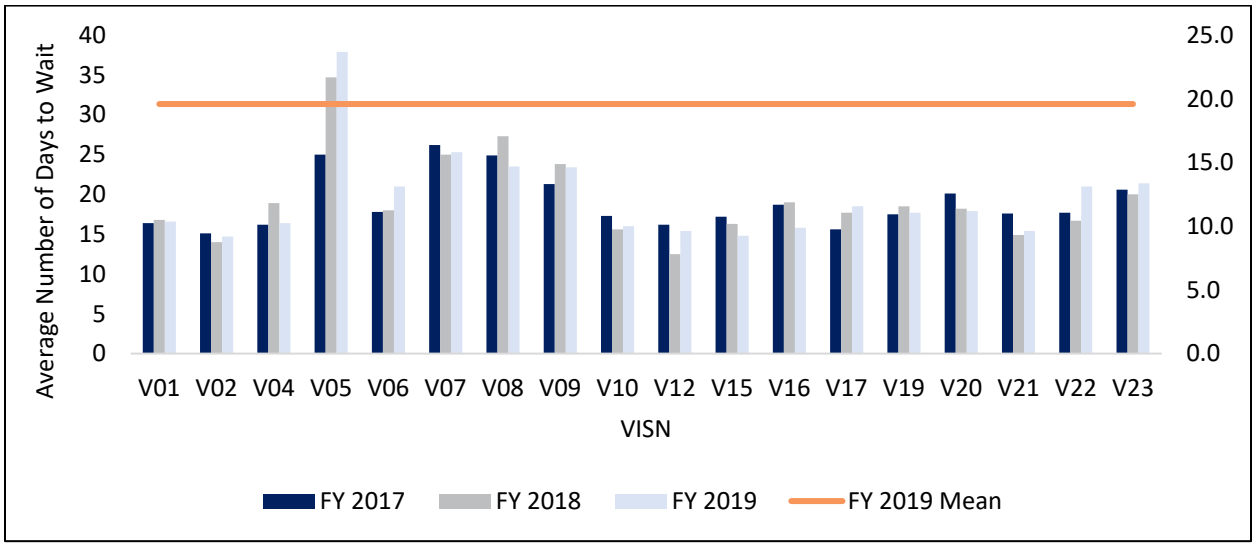
Figure 25: *FY 2019 Percent of Facilities by VISN with Average Wait Times for New Primary Care Appointments*



Source: U.S. Department of Veterans Affairs. VSSC Completed Appointments Cube FY 2019.

As shown in Figure 26 below, VISN 5 average wait times for new gynecology appointments between FY 2018 and FY 2019 were over the 30-day threshold. All other VISNs schedule new gynecology patient appointments, on average, in less than 30 days. VISN 5 had a 51.6% increase in wait times for new gynecology appointments between FY 2017 and FY 2019 (from 25.0 days to 38.9 days).

Figure 26: *FY 2017-19 VISN-Level Average Number of Days to Wait for New Gynecology Appointments*



Source: U.S. Department of Veterans Affairs. VSSC Completed Appointments Cube FY 2019.

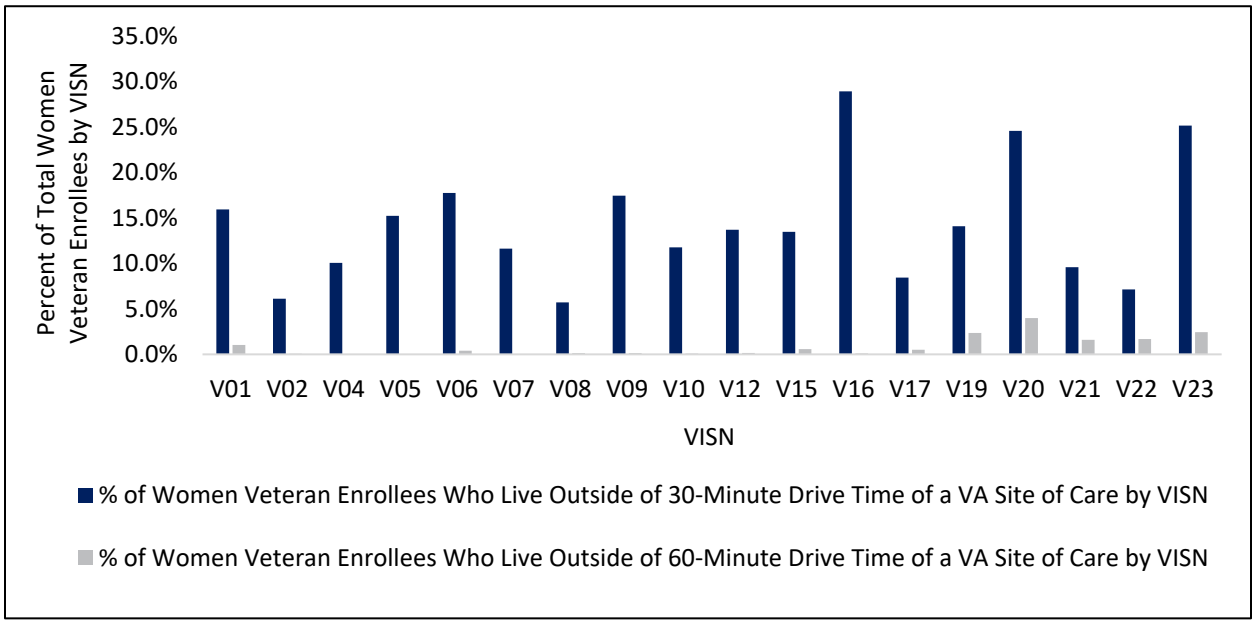
For all VISNs, established gynecology appointments are well under the 30-day threshold and are constant across VISNs between FY 2017 and FY 2019. Because new patient appointments are longer than appointments for established patients, new

patients wait longer for their first gynecology appointment, but all women are seen within 30 days on average.

Drive Times

As of FY 2019, 107,957 (13.4%) women Veteran enrollees live outside of a 30-minute drive time from a VA site of care. As seen in Figure 27 below, VISN 16 and VISN 23 have the highest percentage of women Veteran enrollees who live outside of a 30-minute drive time from a VA site of care within a VISN. There are 6,456 (0.8%) women Veteran enrollees who live outside of a 60-minute drive time to a VA site of care. VISN 20 has the highest percentage of women Veteran enrollees who reside outside of a 60-minute drive time of a VA site of care.

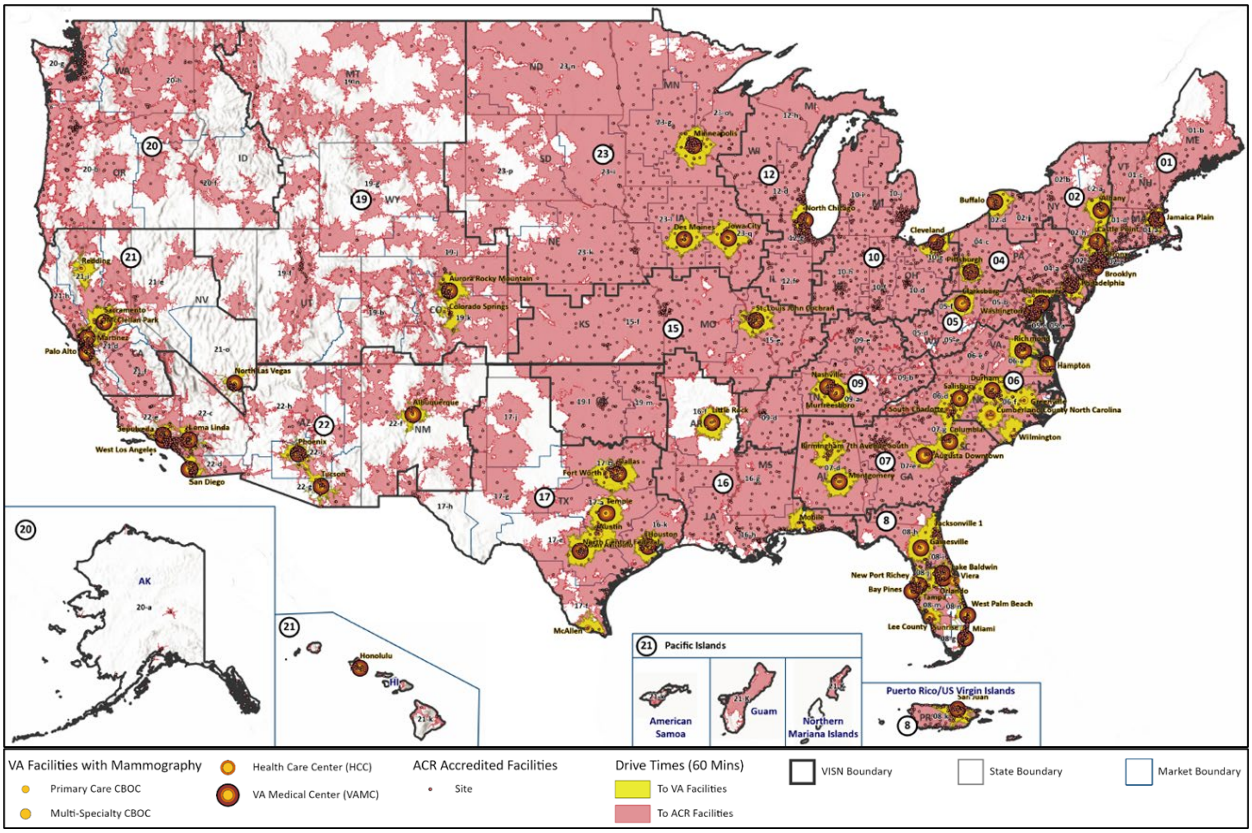
Figure 27: *FY 2019 Percent of Women Veteran Enrollees Living Outside 30-Minute and 60-Minute Drive Times of a VA Site of Care by VISN*



Source: U.S. Department of Veterans Affairs. FY 2020 VA Enrollee Health Care Projection Model. FY 2020 Q1 VAST. Geocoded Enrollee File FY 2018 Q4.

As seen below in Figure 28, the following states do not have VA mammography programs: Maine, Vermont, New Hampshire (VISN 1), Kentucky (VISN 9), Michigan and Indiana (VISN 10), Wisconsin (VISN 12), Kansas (VISN 15), Louisiana and Mississippi (VISN 16), Oklahoma, Wyoming, Utah, Montana (VISN 19), Alaska, Idaho, Oregon, Washington (VISN 20), and Nebraska, South Dakota, and North Dakota (VISN 23). However, there are ACR-accredited sites within a 60-minute drive time of the most populous areas in these regions. Women Veterans living in rural or remote communities in VISNs 19, 20, 21, and 22 may have longer drive times for their mammograms, whether performed at a VA site of care or in the community.

Figure 28: *ACR and VA Mammography Sites and 60-Minute Drive Time*



Source: U.S. Department of Veterans Affairs. VHA National Radiology Program and ACR Accredited Facility Search 2021.

Quality and Satisfaction

Joint Commission Accreditation and Office of the Inspector General

VAMCs and related clinical facilities undergo periodic assessments to meet standards in safety and ensure Veterans receive high quality of care. Assessments may include full reviews of a facility's care delivery and operations, or they may focus on a specific health care concern. There are two organizations that conduct regular quality and safety reviews: The Joint Commission and the Office of the Inspector General's Office of Healthcare Inspections (OHI). These are unscheduled reviews and occur every three years. OHI performs quality reviews of medical center operations, reviews individual health care issues, and inspects and evaluates fraud, waste, and abuse. [23] Like The Joint Commission reviews, OHI reviews facilities on a rotating basis, however, exceptional circumstances may trigger OHI inspections for cause. These inspections and associated reports inform the Secretary and Congress regarding care concerns and opportunities.

Mammography Accreditation and Quality Requirements

All VHA mammography programs must be accredited by the ACR prior to performing any patient imaging and must maintain that accreditation, which is renewed every three

years. This ensures programs meet medical imaging standards for high quality examinations and interpretation. Additionally, VA mammography programs must be certified by VHA and issued a VHA certification number. All other VA facilities must use ACR accredited non-VA providers through contractual and sharing relationships, or fee-for-service facilities. [24]

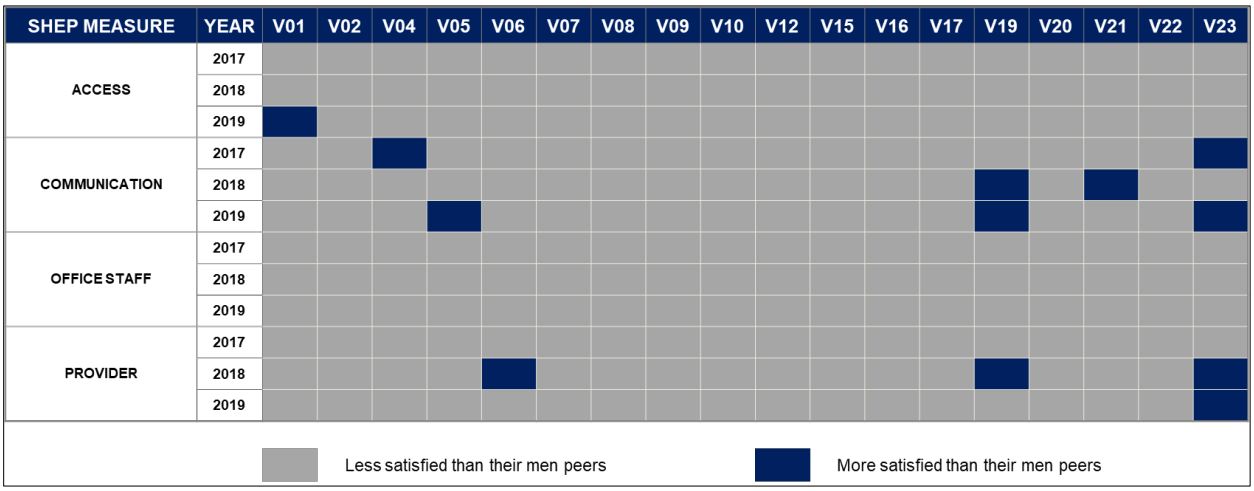
Congress passed the Mammography Quality Standards Act (MQSA) in 1992, which requires inspection of facilities performing mammograms to ensure they meet quality standards, become accredited, and display their accrediting certificate. While VA is excluded from meeting MQSA standards, P.L. 104-262, the Veterans' Health Care Eligibility Reform Act of 1996 states that mammography services and quality standards of VA must be equivalent to MQSA standards. [25] VHA has entered into an interagency agreement with the U.S. Food and Drug Administration (FDA) to use FDA inspectors to conduct mandatory mammography standards inspections annually. [24]

The VHA NRP works closely with the ACR accrediting body and FDA for review of mammography quality. VHA NRP makes recommendations to the Under Secretary for Health for certification of programs. For continuing experience, radiologists must "have interpreted or multi-read at least 960 mammographic examinations during the 24 months immediately preceding the date of the facility's annual MQSA inspection, or the last day of the calendar quarter preceding inspection, or any date in between the two." [26]

Satisfaction: Survey of Healthcare Experience of Patients (SHEP)

VA sends the SHEP questionnaires to patients after select outpatient encounters or inpatient stays to learn more about their health care experience. SHEP questions are based on the Consumer Assessment of Healthcare Providers and Systems instrument created by the Agency for Healthcare Research and Quality (AHRQ). Overall, women Veterans are less satisfied with primary care than their men peers across all measures and all VISNs, and those factors for which women are more satisfied than men are not consistent year-to-year within VISNs, except for satisfaction with providers in VISN 23 (see Figure 29 below).

Figure 29: *FY 2017-19 Women Veterans SHEP Scores Compared to Men Veterans*



Source: U.S. Department of Veterans Affairs. Survey of Healthcare Experience of Patients FY 2017-FY 2019.

Women Veterans who receive care in a Comprehensive WHC are most satisfied with their primary care provider. As age increases, satisfaction increases, but as disability rating increases, satisfaction decreases. [27]

Women's Health 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." [28]

During FY 2020, with the expansion of the COVID-19 pandemic within the United States, VA provided 4.9 million telehealth encounters (home telehealth encounters were excluded) to 1.6 million unique Veterans. This was a 175.5% increase in telehealth encounters from FY 2019, demonstrating VA's ability to grow telehealth capabilities rapidly. As of July 29, 2021, VA provided 8.6 million telehealth encounters to 2.0 million unique Veterans, showing VA's continued commitment to providing virtual services to meet the challenges of the COVID-19 pandemic. [29]

Telehealth encounters for women Veterans (under stop code 323-primary care/medicine) in a mixed panel clinic (for both men and women Veterans) grew 512.2% from 12,814 encounters in FY 2019 to 78,449 encounters in FY 2020. In an environment dedicated solely to women's primary care, the increased demand for telehealth services was even more pronounced. Telehealth encounters for women Veteran users in a comprehensive women's primary care clinic (stop code 322)

increased from 2,089 encounters in FY 2019 to 30,475 encounters in FY 2020, a total increase of 1,358.8%. Additionally, demand for gynecological services increased exponentially as well, from 211 gynecology telehealth encounters in FY 2019 to 4,645 in FY 2020.

During the COVID-19 pandemic, VA provided Fourth Mission support in many communities. This support included placing both clinical and non-clinical staff on-site in a community or VA facility, training in infection control measures, and providing personal protective equipment to other health care organizations. Throughout the COVID-19 pandemic, the OWH provided messaging and guidance to the field about ensuring access to contraception and reproductive health care, triaging routine women-specific screening, and also encouraged women Veterans to use virtual tools such as telehealth to access care and provide continuity safely. [3]

2.3 Commercial and other Federal Provider trends

Women's Health – Federal

DoD

According to the DoD, 16.5% of active-duty military were women in 2018. [30] Active duty military women may seek both primary and reproductive health care at military treatment facilities through the United States DoD TRICARE program, Medicaid, Medicare, or private insurance, or a combination of these sources. Women in active duty receive annual well-woman screenings, breast evaluations, abnormal cervical cancer screening management, birth control counseling, testing and treatment for sexually transmitted infections, infertility evaluations and treatment, evaluation and treatment of gynecologic conditions, maternity care (prenatal, labor and delivery, and post-partum care), and outpatient surgery for diagnosis and treatment of gynecological conditions. [31]

The DoD does not have specific workload requirements for women's health. DoD standard empanelment for family medicine and pediatrics is 1,100 to1,300 beneficiaries per Primary Care Manager, with 1,100 being the minimum empanelment and 1,300 being the upper range empanelment. [32] DoD assigns their Primary Care Managers to several different clinics, including family medicine, internal medicine, pediatrics, adolescent medicine, and women's health. [32] Primary Care Managers include physicians, nurse practitioners, and physicians assistants that trained in primary care specialties. [32]

Indian Health Service

The Indian Health Service (IHS) is a federally funded program that provides services to American Indians and Alaska Natives. IHS does not have specific workload requirements for women's health, instead, their primary care providers include family practice, internal medicine, pediatric, and obstetrician/gynecologist (OB/GYN) services. These primary care providers produce approximately 4,300 primary care visits per

year. [33] This equates to 20 patients per eight-hour clinic day, or 2.5 patients per hour. At 3.7 primary care provider visits per year per person (this includes both men and women) and approximates a panel size of 1,151 patients per provider. IHS notes that panel sizes can vary if sites have separate practices for pediatrics and OB/GYN services. For women, average primary care provider visits per year is 4.4. Therefore, IHS standards approximate a panel size of 975 patients per provider for a dedicated women's clinic. [33]

As seen below in Table 8, there is variation across Federal health care programs' women's health primary care panel sizes. The VHA women's health primary care panel size of 960 is based on recommendations as laid out in VHA Directive 1330.01(4) which specifies that there should be a 20% reduction of the proportion of the panel that are women. [5] The DoD standard empanelment of 1,000 for women's health primary care includes both family medicine and pediatrics and IHS standard empanelment of 975 for women's health primary care includes family practice, pediatrics, internal medicine, and OB/GYN.

Table 8: *Federal Women's Health Primary Care Panel Sizes*

Women's Health Primary Care Panel Size		
VHA	**DoD**	**IHS**
960*	1,100**	975***

*VHA panel size is based on 1,200-0.2(1,200).
**DoD standard empanelment includes family medicine and pediatrics.
***IHS standard empanelment includes family practice, internal medicine, pediatric, and obstetrician/gynecologist.

Women's Health – Commercial

Health Status

The 2020 Kaiser Family Foundation Women's Health Survey found that 85% of 3,661 women rated their health as excellent, very good, or good. Forty-four percent of respondents reported chronic health conditions, and Caucasian and African American women reported chronic health conditions more than other racial groups. Use of medication increases with age and more than half of women responded they are taking at least one prescription medication. [34]

Health Care Utilization

The 2021 Women's Health Market Trend report projects a 4% decrease in inpatient services and a 6% increase in outpatient services. Outpatient services with the highest growth include women's gastroenterology, reproductive endocrinology, and women's cardiology services. Gynecological surgery, gynecological oncology, and urogynecology are the services with the largest decreases in inpatient projected volume. [35]

Most women (79%) reported they have a regular doctor or health care provider, according to the 2020 Women's Health Survey. [34] This number varies by race and insurance status. Most women (73%) reported seeing a family or internal medicine provider, and 7% reported seeing an OB/GYN as their regular provider. [34] The Kaiser

Family Foundation found that more women were visiting family medicine or internal medicine providers for well-women visits in the past two years, but a larger share of younger women see their OB/GYN for check-ups. [34]

Table 9: *Type of Well-Woman or Check-Up Provider Utilization by Age in the Past Two Years*

Women by Age Group (years)	Family or Internal Medicine MD	OB/GYN	Nurse Practitioner or Physician Assistant
18 to 64	51%	35%	11%
18 to 25	44%*	42%*	7%*
26 to 35	40%*	50%*	7%*
36 to 49	47%*	37%*	13%
50-64 (ref)*	62%	22%	13%

Source: KFF Women's Health Survey 2020
NOTE: *Estimate is statistically different from estimate for reference (Ref) within group and clinic type ($p < 0.05$). Seventeen percent of women who have a usual site of care go to a health center or clinic. 'Walk-in clinic' includes urgent care centers and clinics inside a store or pharmacy. 'Community or public health center' includes health departments. Persons of Hispanic origin may be of any race; other racial groups are non-Hispanic. Not sufficient data to report estimates for Asian women. The Federal Poverty Level (FPL) in 2020 for a family of four was $26,200.

Transforming Primary Health Care for Women

Addressing Gaps and Barriers

Socioeconomic and racial disparities lead to opportunities around preventive health care across the United States. A contributing factor to health care outcome disparities is that disease progression and treatment standards vary for women and men. [36] Primary care needs of women change as they age, and specialty services such as cardiology, neurology, and OB/GYN often make up comprehensive care for aging women. [36]

A framework that would provide high quality primary health care for all and addresses women's specific needs at all ages includes investing in medical training, addressing gaps in delivery such as lack of care coordination, and providing equitable care to address disparities. [36]

Specialty Care Needs for Women

The need for specialty care increases as women age and The Commonwealth Fund highlights cardiovascular, neurological, endocrine, and other specialty services in middle (ages 45 to 64) and advanced (ages 65 and older) adulthood. [37]

Quality and Accreditation – Breast Imaging

FDA, MQSA and ACR

Congress passed the MSQA in 1992, which requires inspection of facilities performing mammograms to ensure they meet quality standards, become accredited by the

FDA, and display their accrediting certificate. [25] ACR sponsors an accreditation program and the National Mammography Database so providers can compare their performance against other radiology practices. The National Cancer Institute's Breast Cancer Surveillance Consortium (BCSC) sponsors a similar database devoted to research. [38]

ACR offers a Breast Imaging Center of Excellence certification for sites that earn a three-year accreditation in all breast imaging modalities in addition to the Mammography Accreditation Program. [39] Additional breast imaging modalities include stereotactic breast biopsy, breast ultrasound, and breast MRI. The Breast Imaging Centers of Excellence are able to participate, free of charge, in the National Mammography Database. [40] Current ACR standards for mammography quality compliance require interpreting physicians to read a minimum of 960 mammograms in the 24 months prior to the facility's annual MQSA inspection. [41]

Quality

Accredited facilities maintain their status by the mammography lead interpreting physician auditing the program's key performance measures as listed below in Table 10 and 11 from the ACR and BCSC. [42] [38]

Table 10: *Baseline Screening Mammography Performance Measures and Targets*

Performance Measure	Description	Calculation	Acceptable Performance Range (BCSC)
Recall rate	Proportion of exams requiring follow-up for abnormal interpretation	TP+FP/all screening exams	5% to 12%
Cancer detection rate	Proportion of exams with positive assessment and cancer diagnosis (per 1,000 mammograms)	1000 * TP / (TP + FP + FN + TN)	≥ 2.5
PPV_1	Abnormal finding at screening	TP / (TP + FP1)	3% to 8%
PPV_2	Biopsy recommended	TP / (TP + FP2)	20% to 40%

PPV = Positive Predictive Value
TP (true positive) = positive exam with cancer diagnosis within follow-up period.
TN (true negative) = negative exam with no breast cancer diagnosed within the follow-up period.
FP (false positive) = positive exam with no breast cancer diagnosis within follow-up period.
FN (false negative) = negative exam with cancer diagnosis within follow-up period.
FP1 = positive exam with no breast cancer diagnosed within the follow-up period.
FP2 = proportion of positive exams that had a cancer diagnosis during follow-up period.

Source: ACR – The Clinically Relevant Audit, BCSC Glossary of Terms

Table 11: *Baseline Diagnostic Mammography Performance Measures and Targets*

Performance Measure	Calculation	Acceptable Performance Range (BCSC)	
		Abnormal Screening Follow Up	Palpable Lump
Recall rate	TP+FP/all screening exams	8% to 25%	10% to 25%
Cancer detection rate	1000 * TP / (TP + FP + FN + TN)	≥ 20	≥ 40
PPV_2	TP / (TP + FP2)	15% to 40%	25% to 50%
PPV_3 (biopsy performed)	TP / (TP + FP3)	20% to 45%	30% to 55%
FP3 = Positive exam with benign biopsy within follow-up period.			

Source: ACR – The Clinically Relevant Audit, BCSC Glossary of Terms

In addition to clinical performance measures, the National Committee for Quality Assurance developed the Healthcare Effectiveness Data and Information Set (HEDIS) measures to provide standardized comparisons of health plan performance. The Centers for Medicare and Medicaid Services contracted with National Committee for Quality Assurance to develop the strategy around the measurement standards used to identify opportunities for improvement and for benchmarking purposes. The breast cancer screening HEDIS measure assesses whether eligible women between 50 and 74 years old had at least one screening mammogram in the past two years. [43]

2.4 Current Program Summary

Women Veterans are a growing patient population with specific health care needs that change over their lifetimes, and VA is committed to delivering high-quality, evidence-based, women-centric care, including primary care, gynecologic care (routine and specialty), breast imaging, and behavioral health services.

3. Leading Practices

3.1 Leading Practices Analysis

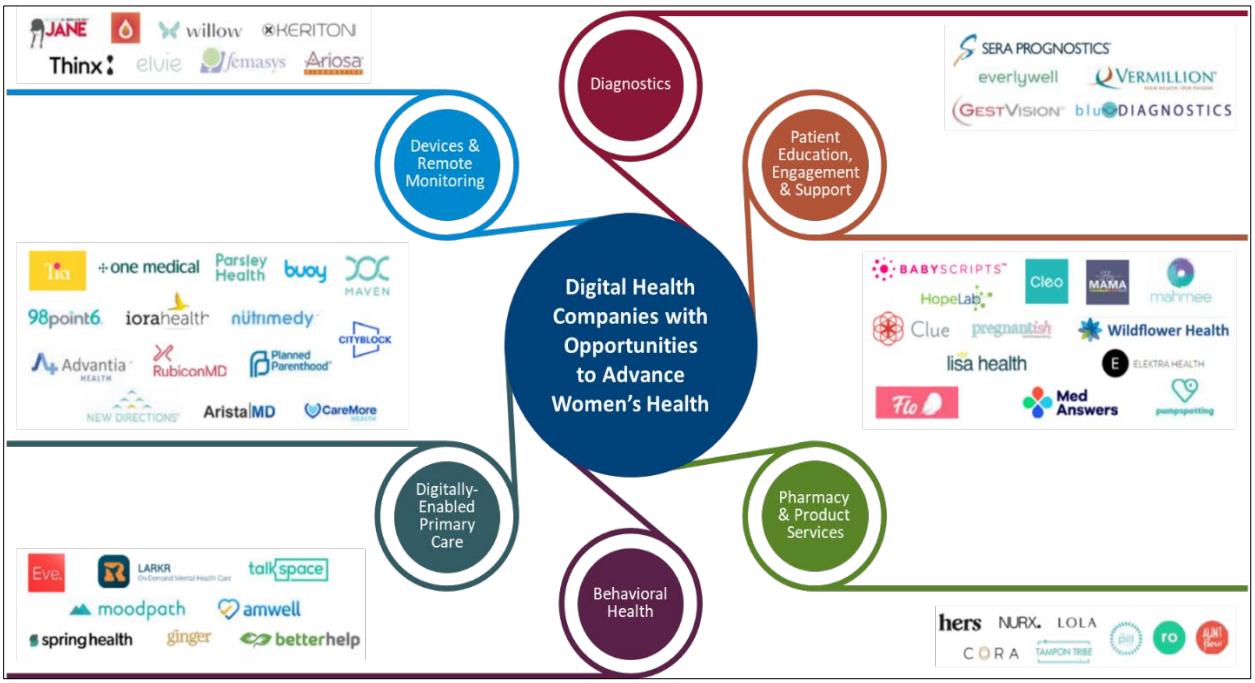
Approaches to women's health care are evolving as health care organizations focus on women's unique needs and initiate innovative approaches to delivering their care. This section contains a review and analysis of leading practices in women's health care in the public and private sector across the United States and internationally. Review of these approaches, particularly those that provide integrated health services for women, provides insights and potential opportunities for VHA leadership to consider in ensuring the best quality of care for women Veterans.

Innovation in Women's Health Care

The Advisory Board, which conducts research in the health care space, predicts that women's health technology will represent a $50 billion industry by 2025 as digital startups change the delivery of traditional health care through their innovations. These technological advances in care delivery support increased accessibility, connectedness, and other approaches to care. [35]

Organizations such as Tia [44] and Maven [45] are transforming the way women receive care through the use of technology, inclusiveness, and a primary care delivery model designed specifically for women. Tia is a member-based company offering virtual and in-person visits focused on root-cause diagnosis and a strong patient-to-provider messaging service. Tia bills patients' insurance companies if they are part of their network, or patients can pay cash for services. [44] Maven is a member-based, international, family-focused telehealth company that offers on-line maternity, fertility, adoption, and surrogacy services as well as virtual education, mental health counseling, and career coaching. The full complement of Maven's services is only available through participating employee health plans, but individual members have access to video chats with providers at reasonable costs. [45] One Medical offers a member-based care platform where patients can see providers in a clinic location during normal business hours or around the clock for virtual visits, but unlike Tia and Maven, One Medical does not focus exclusively on women's health. [46] Figure 30 highlights aspects of women's care and some of the technology-based companies in those care areas. [37]

Figure 30: *Landscape of Digital Solutions Related to Primary Health Care for Women*



Source: The Commonwealth Fund's Transforming Primary Health Care for Women

Health Care Benchmarking – United States

Primary Care Panel Size

The Medical Group Management Association (MGMA), an association for medical practice executives, strives to create change in health care. [47] The MGMA's Compensation and Production Survey provides industry-recognized benchmarking, by specialty, on several elements including productivity measures such as work Relative Value Units (RVU). The MGMA's 2019 Provider Compensation Survey reported mean work RVUs to total encounters ratio for a Family Medicine (without OB) provider was 1.48 in FY 2018. [48]

The AHRQ supports research that supports evidence-based practice to deliver safer, higher quality health care. [49] AHRQ's National Center for Excellence in Primary Care Research supports the nation's primary care clinicians, experts, and researchers. It has created the Practice Facilitation Handbook to provide guidance to medical practice managers on issues such as panel size determination. [50] The handbook is supported by an American Academy of Family Practice (AAFP) article on panel size. [51] AHRQ and AAFP suggest that ideal panel size can be determined by using the following equation:

Panel size * visits/patient year = provider visits/day * provider days/year

AHRQ and AAFP's baseline for average number of visits per patient, for both men and women, per year is 3.19, and the AAFP resource refines this number by weighting the number of visits per year by age and gender. The AAFP recommends that each practice

evaluate the number of unique patients seen every 12 to 18 months to keep panel size spread appropriately across the practice. [52] The Journal of American Board of Family Medicine found that a 1,200 to 1,900 patient-to-primary care physician panel provided greater physician and patient satisfaction. [53]

Gynecology Productivity

The MGMA's 2019 Provider Compensation Survey reported mean work RVUs to total encounters ratio for an OB/GYN provider, providing only gynecology services, was 2.23 in FY 2018. [48] VA can use these benchmarks when considering in-house gynecology productivity.

Mammography and Diagnostic Procedures Recommendations

There are multiple reputable sources that make evidence-based recommendations regarding age and frequency of screening mammograms, including the United States Preventive Services Task Force (USPSTF), ACR, ACS, and HEDIS. [54] [55] Table 12 below provides a comparison of each organization's recommendations.

Table12: *Breast Cancer Screening Recommendations by Major US Clinical Organizations and Care Delivery Model*

Evidence-Based Guidelines Endorsed by Professional Organizations	**Age at Initiation [a]**	**Age at Cessation**	**Screening Interval**
USPSTF	50	74	2 years
ACR	40	Not stated	1 year
ACS	40	Not stated*	Varies by age*
Measures for Quality, Payment, or Incentivized Model	**Age at Initiation [a]**	**Age at Cessation**	**Screening Interval**
HEDIS (2012)	40	69	2 years
HEDIS (2014)	50	74	2 years
Accountable Care Organization/ Primary Care Mental Health	Same as HEDIS		

* Screening should continue as long as a woman is in good health and is expected to live at least 10 more years.
ACR: American College of Radiology, ACS: American Cancer Society, HEDIS: Healthcare Effectiveness Data and Information Set, PCMH: patient-centered medical home, USPSTF: United States Preventative Services Task Force.
[a] Initiation in 40- to 49-year-old is recommended to be discussed between patient and provider and based on risk and patient preferences.
Sources: Screening for Breast Cancer: A Systematic Review to Update the 2009 U.S. Preventive Services Task Force Recommendation and American Cancer Screening Recommendations for the Early Detection of Breast Cancer

The USPSTF recommends evidence-based preventative services to improve national health. Each year, the Task Force recommends priority areas to Congress, which gives AHRQ the authority to convene the Task Force. [56] The 2016 recommendations for breast cancer screening include biennial screening mammograms for women aged 50 to 74. USPSTF encourages women aged 40 to 49 to make individual decisions on the benefits and harms of biennial screening. The Task Force found insufficient evidence for mammograms in women over age 75. [57] [55] There is an estimated 10% false positive rate of women screened, which can lead to unintended harm.

The ACS recommends optional screening for women aged 40 to 44 with average risk, yearly screening for women aged 45 to 54, and either annual or biennial screening for women aged 55 and older. The ACS recommends yearly screening starting at age 30 for women who are at high risk for breast cancer. [9] Similar to the ACS, the ACR recommends women start screening at age 40. ACR recommends yearly screening through age 74 and individualized screening over age 75 based on health status. [58]

American Medical Group Association, a nonprofit trade association, and Sullivan Cotter and Associates, an independent consulting firm, report work RVU benchmarks for mammography. The model below in Table 13 includes the American Medical Group Associations' 2020 report reflecting 2019 data and Sullivan Cotter and Associates' 2019 report reflecting 2018 data.

Table 13: *Benchmark Summary – Mammography: Productivity (work RVUs)*

Benchmark Survey	Survey Specialty Designations	n	25th Percentile	Median	75th Percentile	90th Percentile
American Medical Group Association	Mammography	24	6,294	9,599	10,319	13,136
Sullivan Cotter and Associates	Radiology - Mammography	72	6,062	7,913	10,556	11,475
Blended Weighted Average			6,120	8,335	10,497	11,890

Source: American Medical Group Association and Sullivan Cotter and Associates

Telehealth Standards

In February 2020, the American College of Obstetrics and Gynecology released Committee Opinion Number 798, developed by their Presidential Task Force on Telehealth, which stated that compliance with laws and regulations around telehealth is essential, including appropriate credentialing and licensing in the state where the patient is located. Privacy and confidentiality standards through video and telephonic modes of care delivery are the same as for in-person visits. Connectivity concerns include areas with limited access to broadband and inconsistent mobile phone coverage, and ease of telehealth device use and interfaces may limit access to this modality for some patient populations. [59]

In 2017, the Health Resources and Services Administration developed the Telehealth Centers of Excellence (COE) Program. The program assesses an academic medical

center's use of telehealth resources to improve rural health in their community. The COEs must have a high annual volume of patient visits, reimbursement practices that are financially sustaining, and offer medical services to underserved areas with high chronic disease prevalence and poverty rates. The goals for the COEs are to initiate and track telehealth research, establish a framework for telehealth use in rural areas, and develop nationwide telehealth best practices. The chronic diseases eligible for Telehealth COE programs include hypertension, heart disease, cancer, stroke, diabetes, and chronic kidney disease. [60]

Health Care Benchmarking – International

Primary Care Panel Size

Panel sizes vary internationally, as they do in the United States. In Denmark, patients can list themselves to a general practitioner's panel. A general practitioner's panel size, which includes both men and women, has an average of 1,561 patients, and when their panel reaches1,600 patients, they are allowed to close the list to new patients. [61] In England, a general practitioner's panel includes 2,033 patients [62] and Ontario's Family Health Team recommends a panel size of 1,400 patients for a family physician. [63] VHA primary care panel sizes are at or below these benchmarks.

Mammography Recommendations

The European Commission Initiative for Breast Cancer Screening and Diagnosis recommends no screening for women aged 40 to 44, screening every two or three years for women aged 45 to 49, screening every two years for women aged 50 to 69, and screening every three years for women aged 70 to 74. [64] The Canadian Task Force on Preventative Health recommends no routine screening for women aged 40 to 49, annual routine screening for women aged 50 to 69, and aged 70 to 74 every two to three years. [65]

The European Commission Initiative for Breast Cancer Screening and Diagnosis's Guidelines Development Group recommended that radiologists read between 3,500 and 11,000 mammograms annually. [64] The Canadian Association of Radiologist Mammography Accreditation Program developed standards that a radiologist read 1,000 mammograms annually in order to be accredited through this program. [66]

4. Service Planning Framework

4.1 Program Priorities

The OWH mission is to provide fully integrated, patient-centered, comprehensive care to women Veterans in gender-specific space. Program priorities include ensuring there are enough WH-PCPs and gynecologists to provide care to the growing number of women Veterans enrolling in and using VA health care services, addressing burnout risk and mitigation strategies for WH-PCPs and other women-centric care providers, ensuring women Veterans have access to all appropriate and necessary gender-specific services, and creating a welcoming environment that is respectful to women Veterans. [4]

4.2 Geographic Service Area

To support the OWH mission and priorities, the planning guidelines are at a facility-level. The guidelines address geographic constraints by using number of enrollees by drive times, which are based on where enrollees reside.

4.3 Planning Guidelines and Thresholds

Planning guidelines and thresholds inform the market assessment process. The rationale for establishing VA planning guidelines and thresholds is based on the belief that when a VA service falls below the identified measure, quality, patient safety, or operational efficiency may be compromised. Therefore, VA must carefully examine services to determine that Veteran needs are being 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 measure 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.

The Women's Health National Planning Strategy may influence only a small number of women's health-related opportunities. Women's Health National Planning Strategy guidelines and thresholds are intended primarily for future application, although leadership may want to consider the opportunities to resize some programs and practice panels as part of usual business operations.

Planning guidelines created for women's health are designed to assist in the standardization of women's health care delivery and include the following:[1]

- **Open**: Establish women-only panel, gynecological services, or Comprehensive WHC at locations with requisite demand.
- **Maintain**
  - **Maintain:** No change is recommended.
  - **Re-size:** Maintain services at the current site and size appropriately to accommodate projected demand.
  - **Relocate Program**: Maintain services within the same geographic service area but relocate to another VA site.
- **Partner:** Create a partnership where VA transitions care to a partner.
  - **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.

[1] All National Planning Strategy service planning guidelines may not include all major market move types.

Planning Guidelines Table

Comprehensive Women's Health Center

MAHSO Planning Guidelines and Thresholds	
Service	Comprehensive Women's Health Center (WHC)
Geography	Facility
Prerequisites	Must have access to primary care, gynecology, clinical pharmacy, social work, and dietician staff, as well as cervical screening and maternity coordinators.

Open		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	Minimum of 5,376 women Veteran enrollees within a 60-minute drive time of a VA site of care. Scalable by location.	5,376 women Veteran enrollees currently yield 3,360 women Veteran users at 62.7% market reliance[2]. 3,360 users support four full-sized women's PACT panels. Comprehensive WHC design standards prevent other services using the WHC as "swing" space. Expanding the clinical service area to women users within a 60-minute drive time for a multispecialty center addresses demand for one stop, integrated care.
Supply	One Comprehensive WHC, staffing pro-ratable by location. Staffing for Comprehensive WHCs that meet 5,376 enrollee guidelines to include: • WH-PCP with four-to-one staffing (1.0 RN, 2.0 Licensed practical nurses/Health Techs, and 1.0 clerk to 1.0 WH-PCP) • 1.5 WH-PCP float provider (1.4 staffing factor * WH-PCP FTEE) • 0.6 Gynecology (GYN) FTEE • 1.3 Clinical Pharmacy Specialist • 0.6 Registered Dietician • 2.0 Social Workers	To capitalize on economies of scale and support adequate team cross-coverage, recommend a minimum of 3,360 users (four PACT teams). In addition to 4.0 WH-PCP providers, add 1.5 WH-PCP float providers to cover same day, urgent care, and unplanned PACT provider absences. Addresses VHA Directive 1130.01(4) Health Care Services for Women Veterans. [5]

[2] Market reliance is the number of users divided by the number of enrollees. This differs from market share, which is the number of enrollees divided by the number of eligible Veterans. Market reliance varies by distance and health care system.

Open		
	• Anti-coagulation CPS Staffing thresholds pro-ratable by FTEE.	
Access	Proposed location is in an enrollee-dense area (relative to surrounding counties) with 5,376 women Veteran enrollees within a 60-minute drive time of a VA site of care.	VA's current access standard for secondary (specialty) care is a 60-minute drive time from a VA site of care. Choosing enrollee-dense areas will increase the likelihood that sufficient demand will sustain the program. A 60-minute drive time provides access to one stop, woman-centric care for Veterans.

Maintain – Resize, Relocate		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	**Resize** **Increase Comprehensive WHC size**: Number of women Veteran enrollees within a 60-minute drive time of a VA site of care is greater than 5,376. **Decrease Comprehensive WHC size**: Number of women Veteran enrollees within a 60-minute drive time of a VA site of care is less than 5,376. **Relocate** Locate Comprehensive WHC at a site where there is the densest population of women Veteran enrollees within a 60-minute drive of that VA site of care.	**Resize** **Increase Comprehensive WHC size:** As the number of market enrollees increases, facilities should consider increasing the size of a WHC when the number of enrollees yields more than 3,360 users. Market reliance is significantly greater than 65%. **Decrease Comprehensive WHC size**: If the number of enrollees and associated users fall below targets (5,376 and 3,360), adjust PACT team panels and staffing to meet decreasing demand. Market reliance is significantly less than 60%. **Relocate** Optimal location near most women enrollees within a 60-minute drive time supports access and program sustainability.
Supply	Staffing thresholds pro-ratable by FTEE based on WHC staffing guideline: • WH-PCP with four-to-one staffing (1.0 RN, 2.0 Licensed Practical Nurses/Health Care Techs, and 1.0 clerk to 1.0 WH-PCP) • 1.5 WH-PCP float provider (1.4 staffing factor * WH-PCP FTEE) • 0.6 GYN FTEE • 1.3 Clinical Pharmacy Specialist • 0.6 Registered Dietician • 2.0 Social Workers • Anti-coagulation CPS	Adjusting staffing to actual demand supports appropriate use of facility resources. Addresses VHA Directive 1130.01(4) Health Care Services for Women Veterans. [5]
Access	N/A	N/A

MAHSO Planning Guidelines and Thresholds	
Service	Gynecology FTEE
Geography	Facility
Prerequisites	N/A

Open		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	Minimum of 9,000 women Veteran enrollees within a 60-minute drive time of a VA site of care for 1.0 GYN FTEE, pro-ratable if there are less than 9,000 women Veteran enrollees.	The demand planning guideline is calculated by the average number of women Veteran users who see a gynecologist per year (0.56) times the average number of encounters per 1.0 GYN FTEE (1,283) divided by the percent of women enrollees that use GYN services (8%). 9,000 women Veteran enrollees yield 6,000 women Veteran users at 67% market reliance. Market reliance varies by distance and health care system.
Supply	1.0 GYN FTEE per 9,000 women Veteran enrollees within a 60-minute drive time of a VA site of care. FTEE is pro-ratable if there are less than 9,000 women enrollees.	Target encounters for 1.0 GYN FTEE is 1,283, which is the average number of encounters based on 25th and 50th MGMA percentiles. This target allows for vacation time, sick leave, training, and 11 Federal holidays.
Access	Locate gynecology services in facilities that are centrally located and for which there are 9,000 women Veteran enrollees within a 60-minute drive of a VA site of care.	Centrally located facilities provide access to the greatest number of women enrollees within the 60-minute drive time area.

Maintain - Resize		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	**Maintain** No change needed if GYN encounter volumes are ≥ 80% of target (1,026 encounters per 1.0 GYN FTEE). **Resize** **Add GYN FTEE:** Add additional GYN FTEE when GYN encounters exceed 100% of target. FTEE based on anticipated demand.	**Maintain** Threshold met; no change necessary. **Resize** **Add GYN FTEE:** As the number of market enrollees and associated users increases, facilities should consider adding incremental GYN FTEE to meet demand. GYN FTEE dependent on calculated need (for example, 0.5 FTEE for an additional 4,500 enrollees).
	Reduce GYN FTEE Reduce GYN FTEE when GYN encounters per 1.0 GYN falls below 80% of target (1,026 encounters per 1.0 GYN FTEE per year).	**Reduce GYN FTEE**: If the number of GYN encounters falls below 80% of target, consider reducing GYN FTEE to address decreasing demand. GYN FTEE dependent on calculated need (for example, 0.5 FTEE for 4,500 enrollees).
Supply	1.0 GYN FTEE per 9,000 women Veteran enrollees within a 60-minute drive time of a VA site of care.	Target encounters for 1.0 GYN FTEE is 1,283, which is the average number of encounters based on 25th and 50th MGMA percentiles. This target allows for vacation time, sick leave, training, and 11 Federal holidays.
Access	N/A	N/A

Partner (CCN/AA/Federal)		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	Number of enrollees is less than 900 (<0.1 GYN FTEE) within a 60-minute drive time of a VA site of care, consider partnering with the community.	To provide access to gynecology services for women Veterans who do not live within a 60-minute drive time of a VA site of care that provides gynecology services.
Supply	An academic affiliate, Federal provider, or community provider vetted by Community Care Network Third Party Administrator High-Performing Provider quality guidelines. [67]	Leverage quality resources within the community to provide services to Veterans.
Access	An academic affiliate, Federal provider, or community provider within a 60-minute drive time.	VA standard is a 60-minute average drive time for specialty care services.

Additional Planning Guidelines

In addition to the major planning guidelines addressed above, the analysis of the OWH's priorities suggests the need for one set of guidelines to improve access for women Veterans. The guideline presented below provides pro-ratable staffing FTEE with no upper or lower bounds.

MAHSO Planning Guidelines and Thresholds	
Service	Women's Health Primary Care Provider (WH-PCP) Women-Only Panel Size
Geography	Facility
Prerequisites	Must have at least two WH-PCPs (count) at every outpatient clinic to support coverage for women Veterans.

Open		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	Minimum of 1,344 women Veteran enrollees within a 30-minute drive time of a VA site of care to support a women-only panel of 840 users with 1.0 WH-PCP FTEE. WH-PCP FTEE pro-ratable based on number of women Veteran enrollees.	Current algorithm for staffing WH-PCP FTEE allows for wide variability across facilities. 1,344 women Veteran enrollees yield 840 women users at 62.7% market reliance. Market reliance varies by distance and health care system. The demand planning guideline is calculated by the target average number of encounters per 1.0 WH-PCP FTEE divided by the number of primary care encounters per women Veteran primary care user. To convert users to enrollees, the total number of women Veteran enrollees was divided by the total number of women Veterans that use primary care and then multiplied by the 840-panel size.
Supply	1.0 WH-PCP FTEE per 1,344 women Veteran enrollees within a 30-minute drive time of a VA site of care.	Setting a data-based threshold supports adequate supply of WH-PCPs for our women Veterans and meets legal targets. Target encounters for 1.0 WH-PCP FTEE is based on 50th MGMA percentile work RVUs per year, converted to encounters per year. Threshold supported by interviews with OWH and analysis of guidelines from VHA Directives. Supports continuous WH-PCP coverage as required in VHA Directive1330.01(4). [5]
Access	The facility is centrally located in an area with a minimum women Veteran enrollee population of 1,344 within a 30-minute drive time of a VA site of care.	Centrally located facilities provide access to the greatest number of women enrollees within the 30-minute drive time of a VA site care.

Maintain - Resize		
Planning Domain	**Planning Guideline**	**Rationale**
Demand	**Maintain** **WH-PCP women-only panel:** No change needed if panel size is ≥ 840 women Veteran users. **Resize** **Add WH-PCP women-only panel:** Add a new WH-PCP woman-only panel when number of current women Veteran users on women-only panels at a VA site of care approaches 80% and enrollees are projected to continue increasing. **Reduce number of WH-PCP women-only panels**: Reduce or consolidate WH-PCP women-only panels when number of women Veteran users ≤ 80% of target (672 users when target is 840).	**Maintain** **WH-PCP women-only panel:** Threshold met; no change necessary. **Resize** **Add WH-PCP women-only panel:** As the number of market enrollees and associated users grows, facilities should consider adding women-only WH-PCP panels to promote consistent coverage and access for women Veteran users. WH-PCP FTEE dependent on calculated need (for example, 0.5 FTEE for an additional 420 women users). WH-PCPs with panels greater than 100% capacity may experience longer wait times for appointments. **Reduce number of WH-PCP women-only panels**: If the number women Veteran users falls below 80% of target (840 per panel), consider reducing women-only panels and staffing to address decreasing demand. WH-PCP FTEE dependent on calculated need (for example, 0.8 FTEE for a panel of 672 women users).
Supply	N/A	N/A
Access	N/A	N/A

Detailed Planning Guidelines Rationale

Comprehensive Women's Health Center (WHC)

- A center designed solely for women requires dedicated space that other services cannot use as "swing" space for other clinical activity when not in use by Comprehensive WHC providers.
- Expanding the clinical service area to women Veteran users within a 60-minute drive time of a VA site of care can create access to woman-centered primary and gynecologic care to a greater number of women Veterans.
- To capitalize on economies of scale and support adequate team cross-coverage, recommend a minimum of 3,360 women users (four PACT teams, with 840 women users per PACT). Four full time WH-PCPs can plan coverage and promote fully utilized clinic space on clinic days. A "right-sized" Comprehensive WHC allows for a reasonable return on the facility's space investment. In addition to 4.0 WH-PCP providers, adding 1.5 WH-PCP float providers to cover same day, urgent care, and unplanned PACT provider absences also supports appointments for women Veterans when they need them, even if their assigned WH-PCP is not available.
- Broader PACT team staffing comes from several disparate services such as primary care, specialty care, nursing, social work, dietetics, and pharmacy, and requires a high degree of coordination within a facility. The four PACT team minimum supports reasonable staffing levels.
- For example, four PACT teams support 0.6 FTEE dietician, which is a high part-time FTEE and for which a contributing service might be willing to hire if no dieticians are available. If a Comprehensive WHC only has two teams, a contributing service like dietetics may not be inclined or able to provide a 0.3 FTEE to support the center.
- The proposed Comprehensive WHC staffing baseline provides for a minimum 0.6 FTEE gynecologist, which is based on the planning threshold and guideline for gynecology (0.6 FTEE = 3,360 users per Comprehensive WHC / 6,000 users per 1.0 gynecology FTEE).
- A mental health provider will be co-located within the Comprehensive WHC to support PACT mental health integration.
- Although four PACT teams are the recommended minimum to open a Comprehensive WHC, staffing can be scaled to meet local needs.

Women's Health Primary Care Provider (WH-PCP) Panel Size

- The current PACT algorithm for staffing WH-PCP women-only panels, which is based on local PACT panel targets, allows for wide variability across facilities because base panel sizes vary by location.
- Health care equity for women Veterans is a top priority for OWH and providing enough WH-PCPs to care for women who want a WH-PCP supports this goal.

- Setting an evidence-based threshold promotes adequate and appropriate supply of WH-PCPs for our women Veterans.
- The proposed threshold sets women users at 840 per 1.0 WH-PCP FTEE in a women-only panel. This target aligns to FY 2019 MGMA's Provider Compensation Survey that reported mean work RVUs per encounter in a family medicine (without obstetrical care) setting and an analysis of current VA practice.
- The proposed threshold is based on the average value of the MGMA 50th percentile number of work RVUs per year, converted to encounters.
- FY 2019 VA actual primary care encounters for stop code 322 (comprehensive women's primary care clinic) were 405,392, which sits between the estimated 2019 MGMA 25th percentile and 50th percentile family medicine (without obstetrical care) encounters per year. Stop code 322 serve as the basis for understanding the performance of an all-woman panel.
- To convert users to enrollees, the total number of women Veteran enrollees was divided by the total number of women Veterans that use primary care and then multiplied by the 840-panel size.

Gynecology FTEE

- The demand planning guideline calculation includes the average number of women Veteran users who see a gynecologist per year (0.56) times the average number of encounters per 1.0 GYN FTEE (1,283) divided by the percent of women enrollees that use GYN services (8.0%).
- Using this calculation, 9,000 women Veteran enrollees yield 6,000 women Veteran users at 67% market reliance. Market reliance varies by distance and health care system.
- Target encounters for 1.0 GYN FTEE is 1,283, which is the average number of encounters for community-based gynecologists between the 25th and 50th MGMA percentiles.
- Proposed threshold sets encounters per week at 27.8 (1,283 encounters per year), which is based on FY 2019 MGMA's Provider Compensation Survey that reported mean encounters for gynecology-only services.
- The proposed threshold is between MGMA's 25th and 50th percentile of encounters per year.
- In FY 2019, VA 1.0 FTEE gynecologists averaged 1,152 encounters, which is close to the proposed target of 1,283 encounters per year.
- Between FY 2017 and FY 2019, demand for gynecological services steadily increased from 96,097 encounters to 113,552 encounters, an increase of 18.2%.
- This target allows for vacation time, sick leave, training, and 11 Federal holidays.
- Ideally, gynecologists should see patients at centrally located facilities, which would provide access to the greatest number of women enrollees within the 60-minute drive time area. Setting an evidence-based threshold for hiring 1.0 FTEE gynecologist commensurate with community standards and based on projected enrollees enables VA supply to meet local demand.

5. Future Program Planning

5.1 Applying the Women's Health 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 initiatives for development of a standard national strategy and approach to planning and maintaining programs. While the original MAHSO data provided insight into a wide array of overall Veteran health care patterns, a limited number of women-specific details was provided and therefore, few women's health-specific opportunities were developed. This helped signal the need for additional data and analyses to be conducted to have a deeper understanding of historical trends and projected needs for women Veterans moving forward.

Based on the additional data obtained, the Women's Health National Planning Strategy established the definitive planning guidelines to be used for VA Women's Health planning efforts moving forward.

The national planning guidelines will be used to ensure that the final market assessments apply standardized programmatic criteria across the nation. The guidelines will be useful to VA planners to inform current and future quadrennial market assessments and other planning exercises.

How will MAHSO apply the Women's Health National Planning Strategy?

The four-step process for revisiting MAHSO draft opportunities describes how women's health-specific opportunities will be reviewed and updated, if necessary:

1. Review Phase 1-3 Market Assessment Data and Women's Health Opportunities

The scope of review will include revisiting Phase 1-3 markets and re-assessing opportunities that were specific to women's health services using new thresholds and data (as applicable).

2. Apply Women's Health Planning Guidelines

For applicable draft women's health opportunity, the planner will review market assessment data and apply women's health planning guidelines to opportunities that were specific to Comprehensive WHCs or gynecology. The reassessment will include any new data sources in the updated methods described previously.

3. Update Women's Health Opportunities

As needed, existing market optimization or capital opportunities will be revised.

4. Review and Finalize with VA Leadership

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

Mammography Program Strategy and Planning

This study suggests a path forward for VA's mammography program but was unable to establish guidelines and thresholds due to the current lack of national data on technical and clinical quality.

All VHA mammography programs must be accredited by the ACR and certified by VHA and must maintain that accreditation and certification. However, continuing education standards require review of a minimal number of images, and VHA leadership recognizes that target professional standards for radiologists and technologists in other countries with strong mammography programs, such as Canada and Norway, are much higher.

Data is collected at the local level for the FDA annual inspection medical outcomes audit. There is no centralized database that captures and reports mammography program outcomes. For example, the baseline performance measures and targets referenced in section two of this document require consistent, reliable, and retrievable data to calculate outcomes. Although collecting the number of true positives, number of cancers detected, and number of patients recalled for more testing is done at the program level, there is no centralized repository of this data to compare across the enterprise.

Mammography is an important part of preventive health care for women, and VA leadership understands the value of a strong mammography program to support women Veterans. To develop appropriate professional standards, performance outcomes, and a national planning strategy for mammography, this study recommends VHA enhance the organizational structure, procedures, and responsibilities within the VHA NRP to provide oversight of mammography quality and outcomes at national, regional, and local levels.

To create this program, leadership may consider the following:

- Reviewing key professional standards and select those best practice standards and thresholds leadership believes will best support optimal quality across the VHA mammography program.
- Identifying the key performance measures for which mammography programs will be accountable (for example, BCSC mammography performance measures and targets) and begin regular internal audits of program performance.
- Creating a national tracking system to support data collection and tracking to surveille these measures, or plan for automation of additional data retrieval.

Ideally, VHA would ensure sufficient VHA NRP resources to conduct regular site reviews in-house mammography programs, collect quality metrics such as, technologist

repeat/reject rates (would be self-report), independent radiologist interpretation reviews, and development or purchase of image test sets to assess radiologist proficiency.

Conclusion

The Women's Health National Planning Strategy, created in conjunction with OWH and VHA NRP, is a framework for designing consistent service delivery planning for women's health services. Based on the OWH program priorities, the Women's Health National Planning Strategy provides guidance on how women's health programs 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 service delivery planning is matched to Veteran demand and women's health recommendations are established to inform and support the development of the AIR Commission Report.

Appendix A: References

1. Office of Women's Health. *Department of Veterans Affairs Women's Health Services Strategic Plan*: U.S. Department of Veterans Affairs; 2019-2022.
2. U.S. Department of Veteran Affairs. *VA Enrollee Health Care Projection Model* 2020.
3. Office of Women's Health. *National Planning Strategy Meeting Notes*: U.S. Department of Veterans Affairs; Aprill 2021-August 2021.
4. U.S. Department of Veterans Affairs, Women's Health Evaluation Initiative (WHEI). *Sourcebook Volume 4: Longitudinal Trends in Sociodemographics, Utilization, Health Profile, and Geographic Distribution*. Palo Alto: Center for Innovation to Implementation; 2018.
5. U.S. Department of Veterans Affairs. *VHA Directive 1330.01(4) - Health Care Services for Women Veterans* 2021.
6. Women Vets USA. *Women Veterans Issues*. 2014. https://www.va.gov/womenvet/docs/20yearsHistoricalPerspective.pdf. Accessed June 10, 2021.
7. Authenticated U.S. Government Information GPO. Public Law 102-585 - Veterans Health Care Act of 1992. November 4, 1992. Available at: https://www.govinfo.gov/content/pkg/STATUTE-106/pdf/STATUTE-106-Pg4943.pdf. Accessed May 2021.
8. Authenticated U.S. Government Information GPO. Public Law 116-315 - Johnny Isakson and David P. Roe, M.D. Veterans Health Care and Benefits Improvement Act of 2020. January 5, 2021. Available at: https://www.govinfo.gov/content/pkg/PLAW-116publ315/pdf/PLAW-116publ315.pdf. Accessed May 2021.
9. American Cancer Society. American Cancer Society Recommendations for the Early Detection of Breast Cancer. *American Cancer Society*. 2021. Available at: https://www.cancer.org/cancer/breast-cancer/screening-tests-and-early-detection/american-cancer-society-recommendations-for-the-early-detection-of-breast-cancer.html. Accessed June 2021.
10. Foreman M, Rueshhoff A, Wheeler J. *Improving Women's Health - Health Challenges, Access and Prevention*: National Conference of State Legislatures; 2013.
11. Authenticated U.S. Government Information GPO. Public Law 104-262 - Veterans' Health Care Eligibility Reform Act of 1996. October 9, 1996. Available at: https://www.congress.gov/104/plaws/publ262/PLAW-104publ262.pdf. Accessed May 2021.

12. Authenticated U.S. Government Information GPO. Public Law 106-117 - Veterans Millennium Health Care and Benefits Act. November 30, 1999. Available at: https://www.congress.gov/106/plaws/publ117/PLAW-106publ117.pdf. Accessed May 2021.

13. Authenticated U.S. Government Information GPO. Public Law 108-422 - Veterans Health Program Improvements Act of 2004. November 30, 2004. Available at: https://www.congress.gov/108/plaws/publ422/PLAW-108publ422.pdf. Accessed May 2021.

14. Authenticated U.S. Government Information GPO. Public Law 110-387 - Veterans' Mental Health and Other Care Improvements Act of 2008. October 10, 2008. Available at: https://www.congress.gov/110/plaws/publ387/PLAW-110publ387.pdf. Accessed May 2021.

15. Authenticated U.S. Government Information GPO. Public Law 11-163 - Caregivers and Veterans Omnibus Health Services Act of 2010. May 5, 2010. Available at: https://www.congress.gov/111/plaws/publ163/PLAW-111publ163.pdf. Accessed May 2021.

16. Authenticated U.S. Government Information GPO. Public Law 113-146 - Veterans Access, Choice, and Accountability Act of 2014. August 7, 2014. Available at: https://www.congress.gov/113/plaws/publ146/PLAW-113publ146.pdf. Accessed May 2021.

17. Authenticated U.S. Government Information GPO. Public Law 115-182 - VA MISSION Act of 2018. June 6, 2018. Available at: https://www.congress.gov/115/plaws/publ182/PLAW-115publ182.pdf. Accessed May 2021.

18. U.S. Department of Veterans Affairs. Veteran Community Care Eligibility Fact Sheet. August 30, 2019. https://www.va.gov/COMMUNITYCARE/docs/pubfiles/factsheets/VA-FS_CC-Eligibility.pdf.

19. U.S. Department of Veterans Affairs. National Center for Health Promotion and Disease Prevention. *Get Recommended Screening Tests and Immunizations for Women*. July 2021. Available at: https://www.prevention.va.gov/Healthy_Living/Get_Recommended_Screening_Tests_and_Immunizations_for_Women.asp. Accessed July 2021.

20. U.S. Department of Veterans Affairs, VHA Office of Connected Care. *TeleWomen's Health* 2020.

21. VHA National Radiology Program. *National Planning Strategy Meeting Notes*: U.S. Department of Veterans Affairs; June 2021-August 2021.

22. United States Government Accountability Office. *Mammography: Current Nationwide Capacity Is Adequate, but Access Problems May Exist in Certain Locations*; 2006.

23. Department of Veterans Affairs, Office of the Inspector General. About the Office of Healthcare Inspections. Available at: https://www.va.gov/oig/about/healthcare.asp. Accessed July 2021.

24. U.S. Department of Veterans Affairs. *VHA Directive 1105.03 - Mammography Program Procedures and Standards* 2019.

25. Food and Drug Administration. Frequently Asked Questions about MQSA. February 05, 2018. Available at: https://www.fda.gov/radiation-emitting-products/consumer-information-mqsa/frequently-asked-questions-about-mqsa. Accessed June 2021.

26. U.S. Department of Health and Human Services Food and Drug Administration. *The Mammography Quality Standards Act Final Regulations: Preparing for MQSA Inspections; Final Guidance for Industry and FDA*: Centers for Devices and Radiological Health; 2001.

27. U.S. Department of Veterans Affairs. *Study of Barriers for Women Veterans to VA Health Care - Final Report* 2015.

28. U.S. Department of Veterans Affairs. *About VA*. January 5, 2021. Available at: https://www.va.gov/about_va/.

29. U.S. Department of Veterans Affairs. *VSSC, Telehealth Dashboard* 2021.

30. *2018 Demographics Report: Profile of the Military Community*: Department of Defense; 2018.

31. Women's Health & Pregnancy. *McDonald Army Health Center*. Available at: https://mcdonald.tricare.mil/Health-Services/Womens-Health-Pregnancy. Accessed June 21, 2021.

32. Defense Health Agency. Army Medicine - Health.mil. *Processes and Standards for Primary Care Empanelment and Capacity in Medical*. October 9, 2018. file:///C:/Users/hdirector001.LOCALAD/Downloads/SIGNED%20%20DHAPI%20602511%20%20Standard%20Processes%20for%20PCM%20Empanelment.pdf. Accessed June 2021.

33. IHS Healthcare Systems Planning (HSP). *Health System Planning Process - Ambulatory Care, Primary Care*. August 2020. https://hsp.ihs.gov/Documents/NotesToPlanners/NP_PC.pdf. Accessed June 2021.

34. Frederiksen B, Long M, Ranji U, Salganicoff A. *Women's Health Care Utilization and Costs: Findings from the 2020 KFF Women's Health Survey*: Kaiser Family Foundation; 2021.

35. The Advisory Board. *2021 Women's Health Market Trends* 2020.

36. Zephyrin L, Suennen L, Viswanathan P, Augenstein J, Bachrach D. *Transforming Primary Health Care for Women Part 1: A Framework for Addressing Gaps and Barriers*: Commonwealth Fund; 2020.

37. Zephyrin L, Suennen L, Viswanathan P, Augenstein J, Bachrach D. *Transforming Primary Health Care for Women Part 2: The Path Forward*: Commonwealth Fund; 2020.

38. Breast Cancer Surveillance Consortium. *Evaluating Screening Performance in Practice*: National Cancer Institute; 2004.

39. American College of Radiology. Breast Imaging Centers of Excellence. *American College of Radiology*. Available at: https://www.acraccreditation.org/breast-imaging-center-of-excellence. Accessed June 2021.

40. ACR Breast Imaging Center of Excellence Requirements. *American College of Radiology*. October 31, 2013. https://www.acraccreditation.org/-/media/ACRAccreditation/Documents/BICOE/BICOErequirements.pdf. Accessed June 2021.

41. U.S. Department of Health and Human Services Food and Drug Administration Quality Mammography Standards. *American College of Radiology*. July 27, 2010. https://www.acraccreditation.org/-/media/ACRAccreditation/Documents/Mammography/Forms/PersonnelRequirements.pdf. Accessed June 2021.

42. American College of Radiology. *ACR BI-RADS Atlas 5th Edition* 2013.

43. National Committee for Quality Assurance. HEDIS and Performance Measures. *National Committee for Quality Assurance*. 2021. Available at: https://www.ncqa.org/about-ncqa/. Accessed June 2021.

44. Tia. Company. *Ask Tia*. 2021. Available at: https://asktia.com/company. Accessed June 2021.

45. Maven. About. *Maven Clinic*. 2021. Available at: https://www.mavenclinic.com/about. Accessed June 2021.

46. One Medical. About Us. *One Medical*. 2021. Available at: https://www.onemedical.com/about-us/. Accessed June 2021.

47. MGMA. About Us. *Medical Group Management Association*. Available at: https://www.mgma.com/about/organization. Accessed June 2021.

48. MGMA. *Provider Compensation Survey*: MGMA; 2019.

49. Agency for Healthcare Research and Quality. About AHRQ. *AHRQ*. April 2021. Available at: https://www.ahrq.gov/cpi/about/index.html. Accessed June 2021.

50. Agency for Healthcare Research and Quality. National Center for Excellence in Primary Care Research (NCEPCR). *Agency Healthcare Research and Quality*. May 2019. Available at: https://www.ahrq.gov/ncepcr/about/index.html. Accessed June 2021.

51. Practice Facilitation Handbook Module 20: Facilitating Panel Management. *Agency for Healthcare Research and Quality*. December 2018. https://www.ahrq.gov/ncepcr/tools/pf-handbook/mod20.html. Accessed June 2021.

52. Murray M, Davies M, Boushon B. Panel Size: How many patients can one doctor manage?. *Family Practice Management*. April 2007:44-51.

53. Raffoul M, Moore M, Kamerow D, Bazemore A. A Primary Care Panel Size of 2500 Is Neither Accurate not Reasonable. *Journal of the American Board of Family Medicine*. July-August 2016;29(4):496-499.

54. Onega T, Haas J, Bitton A, et al. Alignment of Breast Cancer Screening Guidelies, Accountability Metrics, and Practice Patterns. *American Journal of Managed Care*. Jan 2017;23(1):35-40.

55. Pacific Northwest Evidence-based Practice Center. *Screening for Breast Cancer: A Systematic Review to Update the 2009 U.S. Preventive Services Tast Force Recommendation*: Agency for Healthcare Research and Quality; 2016.

56. U.S. Preventive Services Task Force. About the USPSTF. *U.S. Preventive Services Task Force*. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/about-uspstf. Accessed June 2021.

57. U.S. Preventive Services Task Force. Final Recommendation Statement Breast Cancer: Screening. *U.S. Preventive Services Task Force*. January 11, 2016. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/breast-cancer-screening. Accessed June 2021.

58. Breast Cancer Screening Guidelines for Women. *Centers for Disease Control and Prevention*. September 22, 2020. https://www.cdc.gov/cancer/breast/pdf/breast-cancer-screening-guidelines-508.pdf. Accessed June 2021.

59. ACOG's Presidential Task Force on Telehealth. Implementing Telehealth in Practice. *ACOG*. February 2020. Available at: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2020/02/implementing-telehealth-in-practice. Accessed June 2021.

60. National Consortium of Telehealth Resource Centers. *National Consortium of Telehealth Resource Centers*. Available at: https://telehealthresourcecenter.org/. Accessed June 2021.

61. Pedersen KM, Andersen JS, Sondergaard J. General Practice and Primary Health Care in Denmark. *Jounral of Board Family Medicine*. 2012;25:34-38.

62. Wang Y, O'Donnell C, Mackay D, Watt G. Practice size and quality attainment under the new GMS contract: a cross-sectional analysis. *British Journal of General Practice*. November 2006;56(532):830-835.

63. Rosser W, Colwill J, Kasperski J, Wilson L. Progress of Ontario's Family Health Team Model: A Patient-Centered Medical Home. *Annals of Family Medicine*. March/April 2011;9(2):165-171.

64. European Commission. European Breast Cancer Guidelines Screening Ages and Frequencies. *European Commission Initiative on Breast Cancer*. June 30, 2021. Available at: https://healthcare-quality.jrc.ec.europa.eu/european-breast-cancer-guidelines/screening-ages-and-frequencies. Accessed June 2021.

65. The Canadian Task Force on Preventive Health. *Recommendations on screening for breast cancer in average-risk women aged 40-74 years*: Canadian Medical Association Journal; 2011.

66. Canadian Association of Radiologists. *Map Read Numbers FAQs*: Canadian Association of Radiologists (CAR); 2019.

67. TriWest Healthcare Alliance. *High Performing Provider (HPP) Designation - Quick Reference Guide*. October 13, 2020. Available at: http://www.triwest.com/globalassets/ccn/provider/education/ccn-high-performing-provider-qrg.pdf. Accessed August 2021.

68. Elkin E, Ishill N, Snow J, et al. Geographic Access and the Use of Screening Mammography. *Medical Care*. April 2010;48(4):349-356.

Appendix B: Interviews

Office	Interviewee(s)	Title(s)/ Position(s)	Date(s)
Office of Women's Health	Dr. Patricia Hayes	Chief Officer, Office of Women's Health	April 2021 - August 2021
	Dr. Sally Haskell	Deputy Chief Officer/Director of Comprehensive Health, Office of Women's Health	
	Dr. Amanda Johnson	Director of Reproductive Health, Office of Women's Health	
	Carrie Kairys	Deputy Field Director, Area 2, Office of Women's Health	
	Alicia Kristy	Deputy Director of Reproductive Health, Office of Women's Health	
	Janet Porter	Deputy Field Director, Area 1, Office of Women's Health	
VHA National Radiology Program	Dr. Jeffrey Chenoweth	Acting Director, VHA National Radiology Program	June 2021 – August 2021
	Lisa Wall	Assistant Director, VHA National Radiology Program	

Appendix C: Acronyms

Acronym	Definition
AAFP	American Academy of Family Practice
ACR	American College of Radiology
ACS	American Cancer Society
AHRQ	Agency for Healthcare Research and Quality
AIR	Asset and Infrastructure Review
BCSC	Breast Cancer Surveillance Consortium
COE	Centers of Excellence
COVID-19	Coronavirus Disease 2019
DoD	Department of Defense
FDA	U.S. Food and Drug Administration
FTEE	Full Time Equivalent Employee
FY	Fiscal Year
GYN	Gynecology
HEDIS	Healthcare Effectiveness Data and Information Set
IHS	Indian Health Service
MAHSO	Market Area Health System Optimization
MISSION	Maintaining Systems and Strengthening Integrated Outside Networks
OB/GYN	Obstetrician/Gynecologist
OHI	Office of HealthCare Inspections
OWH	Office of Women's Health
MQSA	Mammography Quality Standards Act
MRI	Magnetic Resonance Imaging
NRP	National Radiology Program
PACT	Patient Aligned Care Team
RVU	Relative Value Unit
SHEP	Survey of Healthcare Experience of Patients

Acronym	Definition
USPSTF	United States Preventive Services Task Force
VA	Department of Veterans Affairs
VAMC	VA Medical Center
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network
WHC	Women's Health Center
WH-PACT	Women's Health Patient Aligned Care Team
WH-PCP	Women's Health Primary Care Provider

Appendix D: Women's Health Service Organization Chart