

Department of Veterans Affairs



Multiple Sclerosis Centers of Excellence

**Fiscal Year 2022
Annual Report**

MULTIPLE SCLEROSIS CENTERS OF EXCELLENCE



**Veterans Affairs Maryland
Health Care System
Baltimore, MD**



**Washington Veterans Affairs
Medical Center
Washington, DC**



**Veterans Affairs Puget Sound
Health Care System
Seattle, WA**



**Veteran Affairs Portland
Health Care System
Portland, OR**

TABLE OF CONTENTS

VA Acronyms

Introduction

- Mission

Administrative

- Personnel and Full-Time Employment Equivalent
- VA MSCoE Organizational Structure
- Network of MS Regional and Support Programs Map
- Regional and Support Programs
- VA Neurology Centers Advisory Subcommittee
- VA Partnership with National MS Society
- VA MSCoE Staff Memberships in Non-VA Advisory Committees
- VA MSCoE Internal and External Partnerships
- VA Providers Serving on Professional Program and Advisory Committees

Clinical Care & Informatics Core

- MS Veteran Demographics, Outpatient and Specialty Care Utilization, and Disease Modifying Therapy Use
- Telehealth Utilization
- MS and COVID-19 Cases in the VA
- Clinical Demonstration Project

Research Core

- Approved Internal Review Boards Protocols
- Multi-Site Collaborative Research
- Peer Reviewed Publications
- Poster Presentations

Education & Training Core

- Health Care Professionals
- Patient/Care Partner Education Programs
- Community Engagement
- MS Education and Awareness Month
- University Affiliates

VA ACRONYMS

ACPSD, Veteran Affairs Advisory Committee on Prosthetics and Special Disabilities	MSSR, MS Surveillance Registry
ACTRIMS, Americas Committee for Treatment and Research in MS	MS, Multiple Sclerosis
AAN, American Academy of Neurology	MSCoE or Centers, Veterans Affairs MS Centers of Excellence
CDA, Career Development Award	NCAS, Veterans Health Administration Neurology Centers Advisory Subcommittee
CDW, Veterans Affairs Corporate Data Warehouse	Network, Veterans Affairs MS Centers of Excellence National Network of MS Regional and Support Programs
CFU, Criteria for Use	NMSS, National MS Society
CME, Continuing Medical Education	OAA, Veterans Affairs Office of Academic Affiliations
CMSC, Consortium of MS Centers	OCC, Veterans Health Administration Office of Community Care
CPRS, Veteran Affairs Computerized Patient Record System	OCE, Office of Community Engagement
MS Surveillance Registry (MSSR),	ORH, Office of Rural Health
DMT, Disease Modifying Therapy	OHSU, Oregon Health & Science University
ECHO, Veterans Affairs Extension for Community Health Outcomes	OI&T, Veterans Affairs Office of Information and Technology
EES, Veterans Affairs Employee Education System	PBM, Veterans Health Administration Pharmacy Benefits Management
FAC, Veteran Affairs Federal Advisory Committee	PTS, Patients
FY, Fiscal Year	PVA, Paralyzed Veterans of America
FTEE, Full-time employment equivalent	RRMS, Relapsing-Remitting Multiple Sclerosis
GAO, Government Accountability Office	R&D, Veterans Affairs Office of Research and Development
HAP, Veterans Health Administration National Center for Healthcare Advancement and Partnerships	Rx, Prescription
HCP, Healthcare Professional/Provider	SCI-D, Spinal Cord Injuries and Disorders
HCS, Healthcare System/Health Care System	VA, Veterans Affairs
ICD, International Statistical Classification of Diseases and Related Health Problems	VACO, Veterans Affairs Central Office
IFC, Interfacility Consults	VHA, Veterans Health Administration
IOMSN, International Organization of MS Nurses	VISN, Veterans Integrated Service Network
IRB, Internal Review Boards	VSO, Veterans Service Organization
MINDS, MS Intervention and Development of Skills	
MoA, Memorandum of Agreement	

INTRODUCTION

Multiple sclerosis (MS) is the most common progressive neurological condition of young adults. MS is a unique disease in the VA Health Care System (HCS) with onset in young adulthood, female predominance, and common connection with military service. The variable presentation of MS, along with its dynamic and unpredictable course, and progressive nature make MS diagnosis and management challenging. A multidisciplinary care team knowledgeable about MS is essential for optimizing the health and quality of life of Veterans with MS and for selecting, managing, and monitoring the use of the available, but costly and potentially high risk, disease modifying therapies (DMT) over a person's lifetime.

To address the unique needs of Veterans with MS, in 2001, Congress urged the Veterans Health Administration (VHA) to establish two MS Centers of Excellence to coordinate MS clinical care, education, and research [Conference report (H. Rept. 106-988), Senate Appropriations Committee Report (S. Rept. 106-410), House Appropriations Committee report (H. Rept. 106-674)] that accompanied the Department of Veterans Affairs' (VA) Fiscal Year 2001 Appropriation]. In response, the VA convened a committee of MS experts who defined the requirements for the Centers, mandated the establishment of national standards for the care of Veterans with MS and, because only two Centers were to be funded, the development of a network of affiliated regional programs to support local facilities and providers. In 2002, based on competitive applications, two coordinating Centers were selected to lead VA MSCoE, (1) VA MSCoE-East, jointly located in Baltimore, MD and Washington, DC, in Veteran Integrated Service Network (VISN) 5, serving VISNs 1–10, and (2) VA MSCoE-West, jointly located in Seattle, WA and Portland, OR, in VISN 20, serving VISNs 12–23. VA MSCoE was made permanent by the Veterans Benefits, Health Care, and Information Technology Act of 2006 (S.3421).

VA MSCoE is organized into four cores: Clinical Care and Informatics, Education, and Research, that require administrative coordination. Program activities are supervised by the VA National Executive Director, Neurology Services. Since FY18, the VA MSCoE are required to meet Government Accountability Office (GAO) performance measures for oversight and review including an annual self-evaluation report-card, a strategic plan, coordinating VHA Neurology Centers Advisory Subcommittee (NCAS) meetings, and complying with an independent review every five years. This report is based largely on the information provided in the annual GAO self-evaluation report-card. For more information about VA MSCoE, visit the VA MSCoE website at www.va.gov/MS.

MISSION

To further the understanding of MS and its impact on Veterans and ensure access to effective treatments to help manage MS and its associated symptoms.

ADMINISTRATIVE

The VA MSCoE approved annual budget for FY22 was \$2,620,064. The authorized full-time employment equivalent (FTEE) for the VA MSCoE was 14.0. The actual FTEE level was 10.0, with 4 vacancies.

PERSONNEL & FULL-TIME EMPLOYMENT EQUIVALENT

VA MSCoE-East

Name	VA MSCoE Position	Email	VA MSCoE FTEE
Mitchell Wallin, MD, MPH	Director	mitchell.wallin@va.gov	0.63
Heidi Maloni, NP, PhD	Assoc. Director Clinical Care	heidi.maloni@va.gov	0.49
Francesca Bagnato, MD	Assoc. Director Research	francesca.bagnato@va.gov	0.25
Dan Harrison, MD	Fellowship Director	daniel.harrison2@va.gov	0.13
Sarah Fredrich, MD	Neurologist	sarah.fredrich@va.gov	0.25
Terry Lee-Wilk, PhD	Director Neuropsychology	terry.lee-wilk@va.gov	0.50
Angela Young, MBA	Administrative Officer	angela.young4@va.gov	1.00
Kenith Walker	Program Support Assistant	kenith.walker@va.gov	1.00
Shan Jin	Statistical Programmer	shan.jin@va.gov	1.00
Arlene Zawadzki	Nurse Registrar	arlene.zawadzki@va.gov	0.25/(MoA)
Lisa Mitchell, RN, MSN	National VA MSCoE Nurse Coordinator	lisa.mitchell2@va.gov	0.38/(MoA)
Karen Noblitt, APT	Registrar	karen.noblitt@va.gov	0.25/(MoA)
Margaret Kazmierski, LCSW	Social Worker	margaret.kazmierski@va.gov	0
Tamar Harel, MD	VA MSCoE Fellow	tamar.harel@va.gov	0
Yohance Allette, MD, PhD	VA MSCoE Fellow	yohance.allette@va.gov	0
Horea Rus, MD	Physician	horea.rus@va.gov	0
Christopher Bever, MD	Physician	christopher.bever@va.gov	0

TOTAL VACANCIES 2

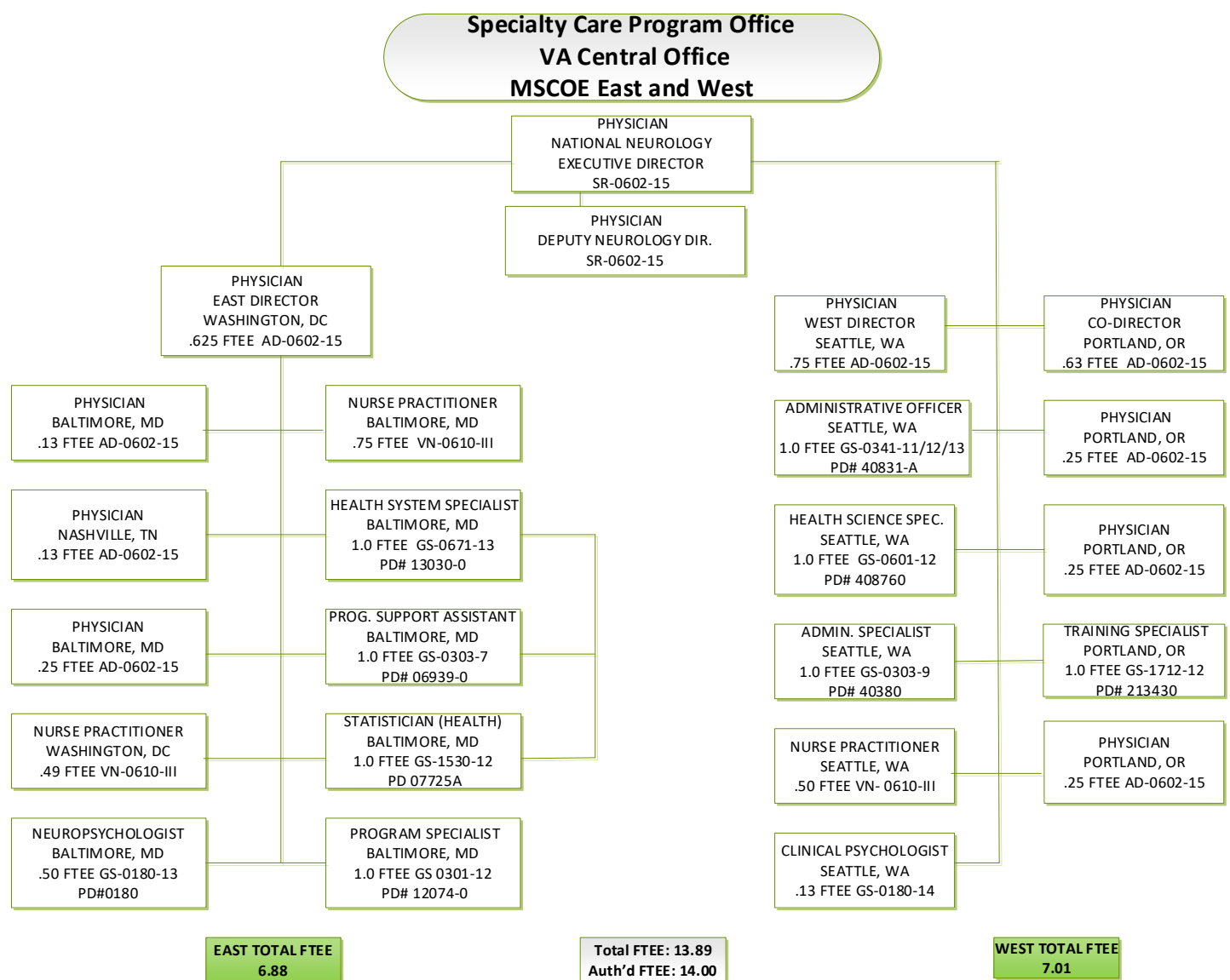
VA MSCoE-West

Name	VA MSCoE Position	Email	VA MSCoE FTEE
Jodie Haselkorn, MD, MPH	Director	jodie.haselkorn@va.gov	0.75
Michelle Cameron, MD, PT, MCR	Co-Director	cameromi@ohsu.edu	0.63
Rebecca Spain, MD, MSPH	Assoc. Director Clinical Care	rebecca.spain@va.gov	0.25
Lindsey Wooliscroft, MD	Assoc. Director Research	lindsey.wooliscroft@va.gov	0.25
Steven Leipertz, PhD	Assoc. Director Informatics	steve.leipertz@va.gov	1.0
Aaron Turner, PhD, ABPP (RP)	Assoc. Co-Director Research	aaron.turner@va.gov	0.13
Vijayshree Yadav, MD, MCR	Assist. Director Clinical Care/ Fellowship Director	vijayshree.yadav@va.gov	0.25
Lynda Hillman, DNP, ARNP	National Clinical Nursing Director	lynda.hillman@va.gov	0.50
Jaimie Henry, MPA	Training Specialist	jaimie.henry@va.gov	1.0
Lani Pitofsky	Administrative Specialist	lani.pitofsky@va.gov	1.0

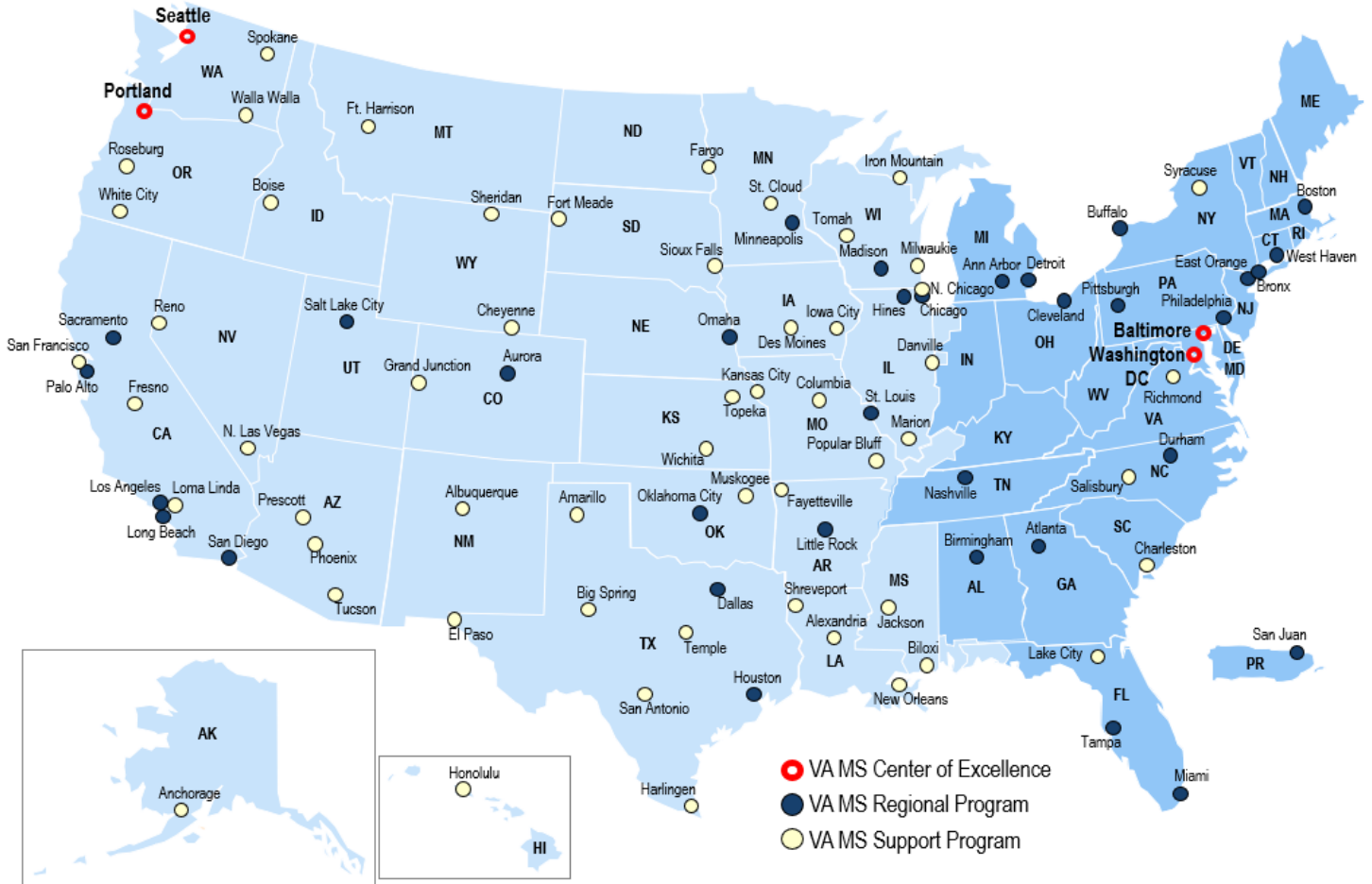
Name	VA MSCoE Position	Email	VA MSCoE FTEE
Lindsey Knowles, PhD	VA MSCoE Fellow	lindsey.knowles@va.gov	0.25
Christopher Hollen, MD	VA MSCoE Fellow	christopher.hollen@va.gov	0
Vicky Chen, MD	VA MSCoE Fellow	chenvic@ohsu.edu	0
Kayla Martin, MD	VA MSCoE Fellow	makayla@ohsu.edu	0
Derek, McFaul, DO	VA MSCoE Fellow	mcfaul@ohsu.edu	0
Cinda Hugos, PT	Health Science Specialist	lucinda.hugos@va.gov	0
Elizabeth Silbermann, MD	Neurologist	elizabeth.silbermann@va.gov	0
Arthur Vandenberg, PhD	Health Science Specialist	arthur.vandenberg@va.gov	0

TOTAL VACANCIES 2

VA MSCOE ORGANIZATIONAL STRUCTURE



NETWORK OF MS REGIONAL & SUPPORT PROGRAMS MAP



REGIONAL & SUPPORT PROGRAMS

VA MSCoE East

VISN	Regional Programs	Support Programs
1	Boston, MA; West Haven, CT	
2	East Orange, NJ; Bronx, NY; Buffalo, NY	Syracuse, NY
4	Philadelphia, PA; Pittsburgh, PA	
5	Baltimore, MD; Washington, DC	Martinsburg, WV; Richmond, VA
6	Durham, NC	Salisbury, NC
7	Birmingham, AL; Atlanta, GA	Charleston, SC
8	Tampa, FL; San Juan, PR; Miami, FL	Lake City, FL
9	Nashville, TN	
10	Cleveland, OH; Detroit, MI; Ann Arbor, MI	

VA MSCoE West

VISN	Regional Programs	Support Programs
12	Chicago, IL; Hines, IL; Madison, WI; Milwaukee, WI	Danville, IL; North Chicago, IL; Iron Mountain, MI; Tomah, WI

VISN	Regional Programs	Support Programs
15	Saint Louis, MO	Columbia, MO; Marion, IL; Topeka, KS; Wichita, KS; Kansas City, MO; Poplar Bluff, MO
16	Little Rock, AR; Houston, TX	Fayetteville, AR; New Orleans, LA; Pineville, LA; Shreveport, LA; Biloxi, MS; Jackson, MS
17	Dallas, TX	Amarillo, TX; Big Spring, TX; El Paso, TX; Harlingen, TX; San Antonio, TX; Temple, TX
19	Denver, CO; Oklahoma City, OK; Salt Lake City, UT	Grand Junction, CO; Fort Harrison, MT; Muskogee, OK; Cheyenne, WY; Sheridan, WY
20	Portland, OR; Seattle, WA	Anchorage, AK; Boise, ID; Roseburg, OR; White City, OR; Spokane, WA; Walla Walla, WA
21	Mather, CA; Palo Alto, CA	Fresno, CA; San Francisco, CA; Honolulu, HI; N. Las Vegas, NV; Reno, NV
22	Long Beach, CA; Los Angeles, CA; San Diego, CA	Tucson, AZ; Loma Linda, CA; Phoenix, AZ; Prescott, AZ; Albuquerque, NM
23	Minneapolis, MN; Omaha, NE	Des Moines, IA; Iowa City, IA; St. Cloud, MN; Fargo, ND; Sioux Falls, SD; Fort Meade, SD

VA NEUROLOGY CENTERS ADVISORY SUBCOMMITTEE

The VA supports Centers of Excellence focusing on epilepsy, MS, and Parkinson’s Disease as directed by 38 U.S.C. 7329, 7330 and 7330A. The VA Neurology Program Office provides oversight for the VA Epilepsy Centers of Excellence (ECoE), the MS Centers of Excellence (MSCoE), and the VA Parkinson’s Disease Research Education and Clinical Centers (PADRECC). The VA MSCoE convenes a VHA NCAS that report to the VA Federal Advisory Committee (FAC) on VA Advisory Committee on Prosthetics and Special Disabilities (ACPSD) in accordance with 38 U.S.C. 7314.

Subcommittee Requirements

The responsibility of the VHA NCAS is to assemble, review, and make policy recommendations related to: (1) assessing the capability of VA health care facilities that host Neurology Centers of Excellence to respond with the most effective and appropriate services available to Veterans struggling with the physical, emotional, and social challenges of neurological disorders; and (2) advancing scientific knowledge to meet those needs by enhancing neurological care for Veterans through research, the training of healthcare professionals (HCP) in the provision of specialized neurological care, and developing improved models of clinical services for Veterans with neurological disorders. VHA NCASs may perform specific projects or assignments as necessary and consistent with the parent Committee’s mission.

The VA MSCoE Designated Federal Officials includes Dr. Wallin, Dr. Haselkorn, Mr. Walker, and Ms. Pitofsky.

Administration Table 1: VA MSCoE VHA NCAS members.

Name	Organization	Role
John Rose, MD	University of Utah	Chair
Fredric Cantor, MD	National Institute of Health	Co-Chair
Timothy Besse	Paralyzed Veterans of America	Member
Jeffrey Wilken, PhD	Fairfax, VA	Member
Chuck Maynard, PhD, MSW, MA	University of Washington- Seattle	Member
Paul Gutierrez, MS, MD	New Mexico VA HCS	Member
Kathleen Burgess, MD, MS	VA Puget Sound HCS	Member
Natasha Antonovich, PharmD	Orlando, VAMC	Member
Kevin Alschuler, PhD	University of Washington- Seattle	Member

Name	Organization	Role
Kathy Tortorice, PharmD	Hines VAMC	Member
Sharyl Martini, MD	VA Central Office	Ex-Officio Member

VA PARTNERSHIP WITH NATIONAL MS SOCIETY

The VA MSCoE and National MS Society (NMSS) have collaborated since the VA MSCoE establishment in 2003. As part of the VA's efforts to advance and improve the lives of Veterans with MS, the VA formalized a partnership with the NMSS on March 6, 2019. The partnership continues to support and maintain the VA's national network of MS clinical services, education, and research. The VA and NMSS seek to enhance health services, patient and HCP education, Veteran self-efficacy, and promote whole health goals of Veterans, care partners, and their families.

VA MSCOE STAFF MEMBERSHIPS IN NON-VA ADVISORY COMMITTEES

Name	Committee
Bagnato, Francesca	Member, NMSS National Medical Advisory Committee Member, NMSS HCP Engagement Council of Tennessee/Kentucky Lead Mentor, Vanderbilt Medical Student Mentorship Member, Vanderbilt Student Mentorship Planning Committee Member, Southeast Council Mental Health Project
Cameron, Michelle	Founding Member, International MS Fall Prevention Research Network (2014-present)
Haselkorn, Jodie	Member, NMSS MS Regional Summit Seattle Member, NMSS National Patient Engagement Committee in Research Member, NMSS National Telehealth Guidelines Work Team Team Physician, National Veterans Wheelchair Games (2002-present) Member, CMSC Continuing Professional Education Committee (2003-present) Member, CMSC Research Interest Group (2003-present) Member, PVA Education Committee (2003-present) Member, CMSC Board of Governors (2019-present)
Kazmierski, Maggie	Member, U of Maryland School of Social Work, Health Care Education and Leadership Scholars Selection Committee (2016-2022) Member, VA Maryland HCS, SW MSW Intern Committee (2019-2022) Chair, NMSS Maryland/DC/Virginia/West Virginia HCP Council (2009-2022) Member, VA Maryland HCS, Human Rights Commission in Research Committee (2017-2022)
Lee-Wilk, Terry	Co-chair, Mental Health Professionals Special Interest Group, CMSC (2020-present) Member, Giants in MS Steering Committee, CMSC (2021-present) Member, Health Advisory Committee, NMSS Greater DC-Maryland Chapter (2015-present) Member, MS Society Regional HCP Council (2018-present) Member, Annual Summit Program Planning Committee, PVA (2017-present)
Maloni, Heidi	Member, NMSS Fellowship Review Committee (2018-present) Member, PVA Education Board (2015-present) Member, PVA Summit Planning Committee (2010-present) Member, District of Columbia Primary Care Association (2000-present)
Mitchell, Lisa	VA Liaison, IOMSN Board (2019-present) Member, Clinical Advisory Board, Maryland Chapter, NMSS (2010-present)

Name	Committee
	Member, NMSS Maryland/DC/Virginia/West Virginia HCP Council
Silbermann, Elizabeth	Member, American Neurological Association Governance Council (2021-present) Co-Leader, International Women in MS Neuro-Ophthalmology Group (2019-present) Board Member, American Neurological Association Board of Directors (2018-2021)
Sloan, Alicia	Member, NMSS Greater Northwest HCP Council Member, PVA Summit Program Committee (2022-present) Member, Team Rubicon, Region 10, USA (2015-present)
Spain, Rebecca	Member, Oregon Governor's Oregon Prescription Drug Affordability Board (2022) Member, John Dystel Prize Committee, AAN (2021-present) Member, NMSS Nutrition Subcommittee (2019-current) Member, NMSS Fellowship Review Committee (2018-present)
Turner, Aaron	Member, American Psychological Association Annual Convention, Division 22 Program Committee (2007-present) Member, American Psychological Association Awards Committee (2012-present) Member, American Board of Professional Psychology, Rehabilitation Psychology Practice Sample Review Board (2013-present) President, Academy of Rehabilitation Psychology (2019-present)
Wallin, Mitchell	Member, NMSS National Telehealth Guidelines Work Team
Wooliscroft, Lindsey	Member, Junior and Early Career Membership Committee, American Neurological Association (2020-present) Co-Leader, International Women in MS Neuro-Ophthalmology Group (2019-present) VA MSCoE Representative, VA Neurology Field Advisory Board (2021-present) Webinar Lead, Education Committee, American Neurological Association (2020-present)
Yadav, Vijayshree	Co-founder and Member Steering Committee, MS and Neuroimmunology National Fellowship Didactic Lecture Series hosted by ACTRIMS (2020-present)

VA MSCOE INTERNAL & EXTERNAL PARTNERSHIPS

Internal Collaborations

VA Office of Academic Affiliations

The VA conducts education and training programs to enhance the quality of care provided to Veterans within the VA HCS. Building on the longstanding, close relationships among the VA and the nation's academic institutions, the VA plays a leadership role in defining the education of future HCPs that helps meet the changing needs of the nation's healthcare delivery system. Through its partnerships with affiliated academic institutions, the VA conducts the largest education and training effort for health professionals in the nation.

VHA Office of Community Care

The VHA Office of Community Care (OCC) operates two main service lines, Delivery Operations and Revenue Operations, that support medical care delivery and services for Veterans and their families. VHA OCC is also responsible for functions that support service lines such as administration, planning, oversight, and stakeholder relations. VHA OCC works closely with Veterans and their families, community providers, and VA staff to ensure that Veterans can get care from community providers when needed.

VHA National Center for Healthcare Advancement & Partnerships

The VHA National Center for Healthcare Advancement and Partnerships (HAP) serves as a trusted resource and a catalyst for the growth of effective partnerships at the national, state, and community level. It also serves as a

facilitator/access point for public and private entities interested in partnering with VHA to benefit Veterans, their families, care partners, and survivors.

VA Employee Education System

The VA Employee Education System (EES) partners with the VA, VHA program offices, and VISNs to provide quality workforce education and training to improve outcomes in Veteran clinical care, healthcare operations, and administration. VA EES also offers accredited courses and programs, in association with 17 national and two state accrediting bodies.

VA Office of Information & Technology

The VA Office of Information and Technology (OI&T) provides a seamless, unified Veteran experience through the delivery of state-of-the-art technology through collaboration with business partners.

VHA Pharmacy Benefits Management Service

The VHA Pharmacy Benefits Management Service (PBM) provides leadership for pharmacy activities in the VHA and provides advice and support regarding pharmacy issues to a wide variety of stakeholders, including Veterans, the Under Secretary for Health, VA medical facility Directors, and clinical staff across the system. VHA PBM works to enhance clinical outcomes and improve the health of Veteran patients through the appropriate use of pharmaceuticals.

VA Office of Research & Development

The VA Office of Research and Development (R&D) is focused on health issues that affect Veterans. It is part of an integrated HCS and has come to be viewed as a model for superior bench-to-bedside research. The VA R&D program has been improving the lives of Veterans and all Americans through health care discovery and innovation.

VHA Advisory Committee on Prosthetics & Special Disabilities

The VHA Advisory Committee on Prosthetics & Special Disabilities (ACPSD) provides advice to the Secretary of VA on VA prosthetics and special-disabilities programs; coordination of VA and non-VA programs to develop and test prosthetic devices; and coordination of the informational exchange regarding development and testing of prosthetic devices. VHA ACPSD also serves as the parent VA FAC to the VHA NCAS.

VA Spinal Cord Injury & Disorders National Program

The VA Spinal Cord Injury & Disorders (SCI-D) National Program supports and maintains the health, independence, quality of life, and productivity of Veterans with SCI-D throughout their lives. These objectives are accomplished through rehabilitation, sustaining medical and surgical care; patient and family education; psychological and vocational care; education; and professional training. In addition, VA SCI-D National Program works collaboratively with VA MSCoE in the care management of Veterans with MS who also have spinal cord lesions and complications.

External Collaborations & Partnerships

VA MSCoE collaborations and partnerships with non-VA organizations exist for the purpose of building strong communities, sharing knowledge, and enhancing communication within the MS network to optimize services and resources for Veterans. Services include providing educational materials and programs for HCPs and Veterans, developing strategies to reach people with MS in rural areas, providing fellowship opportunities and experiences, promoting research in MS, and providing networking opportunities. The following organizations are the primary VA MSCoE external collaborators and partners:

National MS Society



National
Multiple Sclerosis
Society

The NMSS exists because there are people with MS. Everything they do is focused so that people affected by MS can live their best lives and stop MS in its tracks, restore what has been lost, and end MS forever. The VA MSCoE and NMSS have collaborated since the VA MSCoE establishment in 2003. As part of the VA's efforts to advance and improve the lives of Veterans with MS, the VA formalized a partnership with the NMSS on March 6, 2019. The partnership continues to support and maintain the VA's national network of MS clinical services, education, and research. The VA and NMSS seek to enhance health services, patient education, self-efficacy and promote whole health goals of Veterans, care partners, and their families.

Consortium of MS Centers



THE CONSORTIUM OF
MULTIPLE SCLEROSIS CENTERS

The Consortium of MS Centers (CMSC) provides leadership in clinical research and education, develops opportunities to share information and knowledge among consortium members, and disseminates information to the health care community and to people affected by MS. The CMSC has been a consistent partner and supporter of the VA MSCoE and has provided excellent education opportunities for VA HCPs through scholarships to attend the CMSC Annual Meetings, with additional training opportunities for fellows and nurses. During the CMSC annual meetings, the VA MSCoE is complemented with two sponsored education symposia that are facilitated by VA presenters. The Consortium also provides an opportunity for VA MSCoE to host an annual VA Business Meeting, host an educational booth in the exhibit hall, and collaborate with the CMSC on the annual Patient Education Program. The CMSC provides complementary consortium membership to all VA employees and a position on the CMSC Board of Governors to a VA MSCoE representative. Dr. Haselkorn is currently serving as the VA MSCoE representative.

International Organization of MS Nurses



IOMSN
International Organization
of Multiple Sclerosis Nurses

The International Organization of MS Nurses (IOMSN) is the first and only international organization focused solely on the needs and goals of professional nurses, anywhere in the world, who care for people with MS. Mentoring, educating, networking, sharing – the IOMSN supports nurses in their continuing effort to offer HOPE. Ms. Mitchell served as the VA Nurse Representative from 2020-2023. The Nurse Case Manager from the VA New Jersey HCS in East Orange, NJ - Ms. Maryann Rosenberg - was recognized and selected to receive the 2021 *Nightingale Award*. The award was for Ms. Rosenberg and her team's proposal to expand MS nursing that would have a lasting impact.

Paralyzed Veterans of America



**Paralyzed
Veterans
of America**

The Paralyzed Veterans of America (PVA) is a Veterans Service Organization (VSO) that holds 34 chapters and 69 National Service Offices in the US and Puerto Rico. PVA staff are skilled at working with the unique issues involved with MS care access, disability, and service-connection as well as a variety of recreational opportunities. PVA visits many VA MSCoE Regional Programs as part of its evaluation of SCI-D Centers, providing Veteran and organizational perspectives, highlighting VA MSCoE locally and in the VISN, and recommending opportunities for improvements. PVA representatives are also members of facility internal review boards (IRB), providing a voice for Veteran needs. Dr. Maloni and Dr. Lee-Wilk serve as planning committee members.

Can Do MS



Can Do MS is a nonprofit that delivers health and wellness education programs for families with MS. The organization has been at the forefront of promoting the culture and belief that everyone living with MS has the power to live full lives. VA MSCoE partners with Can Do MS to deliver health and wellness education programs via monthly patient-education webinars and virtual programs.

Clinical Care & Informatics Core

Objectives

Ensure high-quality clinical care across the United States by identifying Veterans with MS and understanding their use of services within and without the VA system of care.

Optimize clinical care of Veterans with MS via a national network of VA MS Regional and Support Programs that maximizes the potential of electronic medical records and telehealth.

Partner with Advanced Clinical Care team members to promote a wellness-first approach to care for Veterans with MS.

Serve as advisory for appropriate, safe, and monitored use of MS therapies through collaborations with the national VA PBM Service.

Monitor outpatient utilization of VA health care by Veterans with MS including the unique VA MSCoE stop code visits (344) by VISN.

Collect data on Community Care for Veterans with MS.

Maintain MS-COVID-19 Registry for the VA HCS using active surveillance.

Expand the use of VA MSCoE telehealth encounters and track utilization for Veterans with MS.

Maintain a national VA Data Repository of Veterans with MS.

MS VETERAN DEMOGRAPHICS, OUTPATIENT & SPECIALTY CARE UTILIZATION, & DISEASE MODIFYING THERAPY USE

Knowing our Veteran population with MS is fundamental to ensuring the high quality of their care. VA MSCoE obtains and synthesizes demographic and utilization data for a confirmed cohort of Veterans with MS. For the following tables, a Veteran is counted as having MS if they have had three MS encounters (Inpatient/Outpatient/Prescription [Rx]) within any year (Culpepper WJ, et al Neurology 2019 DOI: 10.1212/WNL.0000000000007043). The data is confirmed using the VA Computerized Patient Record System (CPRS), MS Surveillance Registry (MSSR), MS Repository, VHA Pharmacy Benefits Management (PBM), and other data streams, either taking an MS-specific therapy or at least one encounter per year with a primary diagnosis of MS. The geographic distribution of Veterans is shown in Table 2 using International Statistical Classification of Diseases and Related Health Problems (ICD) codes in VA CPRS to identify the total number of Veterans with MS per VISN, the number captured using the MS Service Clinic stop code 344, and the number of Veterans with MS entered in the MSSR. Lower numbers of Veterans identified by MS Service Clinic stop code and by MSSR entry highlight geographic areas needing additional support for these efforts.

MS Veteran Demographics

Veterans with MS are 74% male, average age of 60, and predominantly White race. While about half are considered to have a relapsing-remitting (RRMS) subtype, the average age for RRMS is 56 years, which is older than the average age of RRMS participants in clinical trials for DMTs. In addition, a third of Veterans with MS live in rural locations. Both the age and rural locations are important considerations for selecting appropriate MS therapies.

Clinical Care/Informatics Table 1: FY22 demographics of Veterans with an MS diagnosis in the VA system.

Demographic Variable	Entire VA (n)	Percent of Total
N (number of Veterans with MS)	19,806	
Male	14,940	73.4%
Female	4,866	24.6%
Average Age (Male)	66	
Average Age (Female)	57	
Rural	6,465	32.6%

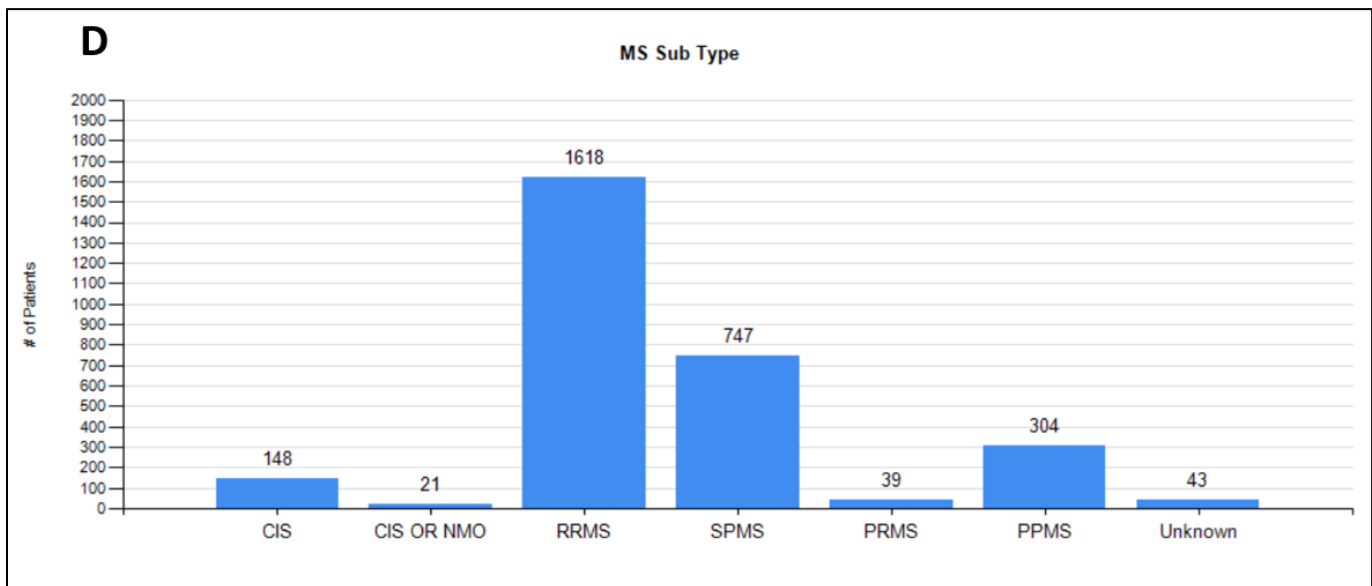
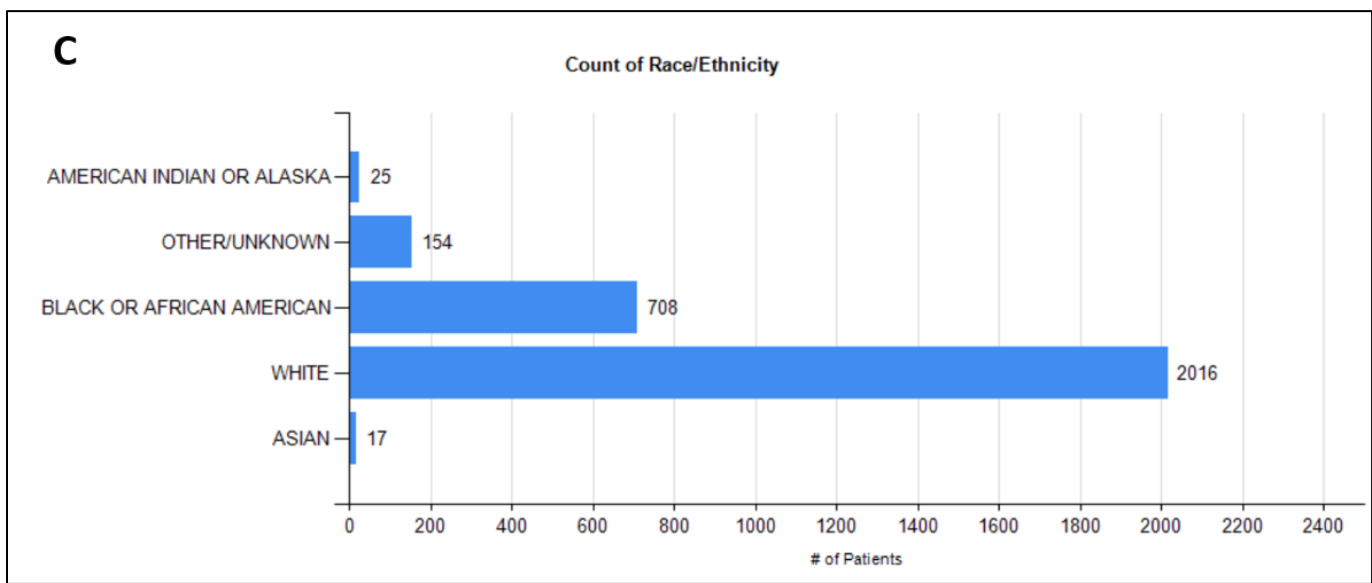
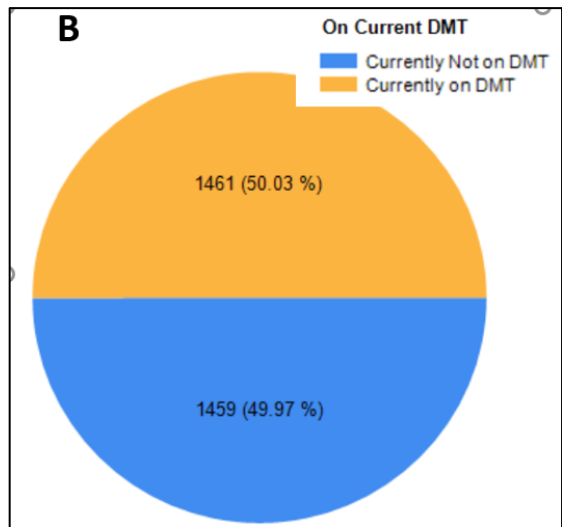
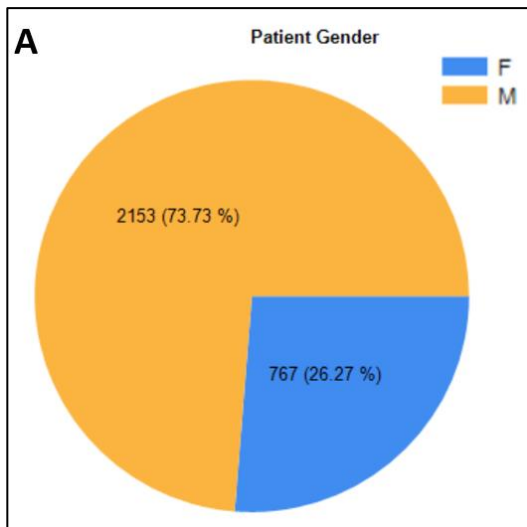
Data source: VA Corporate Data Warehouse (CDW) tables describing patient by station and related tables.

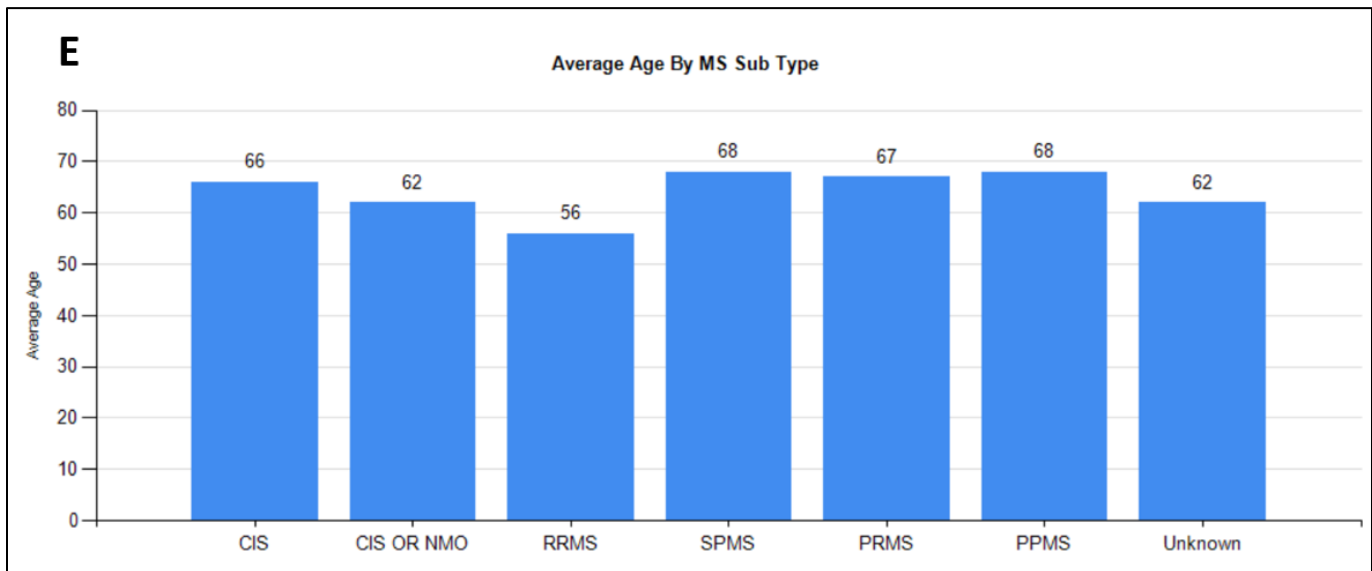
Clinical Care/Informatics Table 2: Unique Veterans with MS by VISN based on ICD Code, MS Service Clinic Stop Code 344, and MSSR FY22.

FY22 by VISN	Unique Veterans with MS Based on ICD Code	Unique Veterans Based on MS Service Clinic Stop Code 344	Unique Veterans Entered Into MSSR
Total	19,172	3,995	2,449
VISN 1	880	94	17
VISN 2	934	185	316
VISN 4	962	75	139
VISN 5	791	597	512
VISN 6	1,419	177	80
VISN 7	1,327	295	201
VISN 8	1,748	35	43
VISN 9	805	148	6
VISN 10	1,687	228	15
VISN 12	946	446	2
VISN 15	746	13	10
VISN 16	1,132	277	16
VISN 17	1,196	0	159
VISN 19	1,327	263	182
VISN 20	1,324	675	723
VISN 21	937	0	7
VISN 22	1,446	382	12
VISN 23	1,034	105	4

Source: ICD codes are from the VHA Support Service Center Neurology Cube. ICD codes are from the VA CDW.

Clinical Care/Informatics Figure 1: MS Veteran Demographics. Demographics of Veterans with MS in the MSSR (n=2449) including (A) gender, (B) current taking DMT, (C) Race/Ethnicity, (D) MS subtype (CIS, clinically isolated syndrome; NMO, neuromyelitis optica; RRMS, relapsing remitting MS; SPMS, secondary progressive MS; PRMS, progressive relapsing MS; PPMS, primary progressive MS), (E) Average age per MS subtype.





MS Veteran Outpatient & Specialty Care Utilization

While the number of Veterans with MS decreased since 2020, the average number of visits per Veteran with MS increase by 2022 (Table 3). Most Veterans with MS are seen by Neurologists, however some are seen instead or additionally by Rehab Physicians and SCI-D programs (Table 4). Community Care is utilized widely by Veterans with MS (Table 5), and efforts are underway to better understand the types of Community Care services received (e.g., primary neurological care vs rehabilitation support, laboratory services, etc.). Interfacility consults (IFC) are a mechanism for smaller MS programs to receive intermittent help with managing complex MS care via e-consults and virtual visits. Reasons for IFCs can include diagnosis confirmation, help with initiating or switching DMT, and symptomatic management.

MS Outpatient Care Visits

Clinical Care/Informatics Table 3: Totals of unique Veterans and unique outpatient visits in the VA nationally VA MSCoE-East (VISNs 1–10) and -West (VISNs 12–23).

FY	Unique Outpatient Visits (n)	Unique Veterans with MS (n)	Average Visits/Veteran
2022	742,402	19,172	38.7
2021	770,448	19,806	38.9
2020	813,702	22,456	36.2

Data source: VHA Support Service Center Neurology Cube Neurology Cube

MS Specialty Care Visits

Clinical Care/Informatics Table 4: Veterans with MS seen in national specialty care visits to Neurology, Rehabilitation (Rehab) Physicians, and SCI-D programs with MS as primary or secondary diagnosis.

FY	Veterans with MS Seen by Providers in Neurology, Rehab Physicians, and SCI-D	Percent of All MS Veterans	Veterans Encounters with MS Provider	As % of all Outpatient Encounters	
FY22	Neurology	8,417	43.9%	19,604	2.6%
	Rehab Physicians	1,133	5.9%	2,718	0.4%
	SCI-D	3,470	18.1%	46,688	6.3%
FY21	Neurology	7,824	39.5%	17,739	2.3%
	Rehab Physicians	1,152	5.8%	2,600	0.3%

FY	Veterans with MS Seen by Providers in Neurology, Rehab Physicians, and SCI-D		Percent of All MS Veterans	Veterans Encounters with MS Provider	As % of all Outpatient Encounters
	SCI-D	3,596	18.2%	46,198	6.0%
FY20	Neurology	8,807	39.2%	18,720	2.3%
	Rehab Physicians	1,303	5.8%	3,216	0.4%
	SCI-D	3,654	16.3%	49,559	6.1%

Data source: VHA Support Service Center Neurology Cube Neurology Cube

Clinical Care/Informatics Table 5: VHA OCC utilization by Veterans with MS FY21 and FY22, total and per VISN.

Location	FY21: Veterans with MS Receiving VHA OCC, n	FY21: Total VHA OCC encounters by Veterans with MS receiving VHA OCC, n	FY21: Mean VHA OCC Encounters per Veteran with MS receiving VHA OCC, n	FY22: Veterans with MS Receiving VHA OCC, n	FY22: Total VHA OCC encounters by Veterans with MS receiving VHA OCC, n	FY22: Mean VHA OCC Encounters per Veteran with MS receiving VHA OCC, n
Total	19,805	225,368	11.38	18,932	76,791	4.06
VISN 1	925	6,581	7.11	886	3,544	4.00
VISN 2	693	7,500	10.82	653	1,963	3.01
VISN 4	960	4,963	5.17	921	1,719	1.87
VISN 5	1,020	4,646	4.55	1,029	2,332	2.27
VISN 6	1,319	11,033	8.36	1,303	5,394	4.14
VISN 7	769	15,257	19.84	709	3,213	4.53
VISN 8	1,736	31,698	18.26	1,698	10,340	6.09
VISN 9	563	6,713	11.92	550	2,955	5.37
VISN 10	1,319	11,884	9.01	1,226	4,219	3.44
VISN 12	984	12,384	12.59	972	5,166	5.31
VISN 15	1,471	10,266	6.98	1,433	6,508	4.54
VISN 16	707	9,683	13.70	721	3,818	5.30
VISN 17	1,428	12,925	9.05	1,443	4,531	3.14
VISN 19	1,191	19,234	16.15	1,104	5,734	5.19
VISN 20	1,415	19,253	13.61	1,214	6,029	4.97
VISN 21	729	9,200	12.62	617	2,865	4.64
VISN 22	1,863	16,737	8.98	1,691	3,924	2.32
VISN 23	801	15,355	19.17	802	2,289	2.85

Data from VHA OCC – VA Central Office; Numbers reflect VHA OCC services after payment was made for the encounter. (Last date of service 09/20/2022, last date of process 09/20/2022).

Clinical Care Interfacility Virtual Consults

VA MSCoE encourages MS specialty care through utilization of virtual IFC to the VISN Regional Program. As an example, in FY22, Portland completed 16 IFC from 9 sites in VISN 20. These took the format of e-consults and Veteran Video Connect consultations. Informal consultation to Veteran providers by email is also utilized until a formal IFC tract is in place.

Disease Modifying Therapy Use

Approximately 55% of Veterans with MS are currently prescribed a DMT with greater percentages in Veterans less than 60 years old (Table 6). Specific DMT use is listed in Table 7. Data collected by VA MSCoE regarding age of use and DMT type direct education regarding safe and appropriate use of DMT. VA MSCoE works closely with VHA PBM to promote

rapid adoption of generic and lower cost medications. **Cost savings from conversion of brand Betaseron® to lower cost Extavia® in FY21 saved \$548,310. Conversion of brand Tecfidera® to generic dimethyl fumarate saved \$24,450,887 between July 2021 and February 2022.**

New Disease Modifying Therapies in FY22

VA MSCoE worked with VHA PBM to create the Criteria for Use (CFU) documents for ponesimod (Ponvory™) and revised the CFU for ofatumumab (Kesimpta®). Revisions were made with the feedback gathered by VA MSCoE from VA MS providers in the field. Announcements and guidance documents regarding these CFU were sent to VA MS HCPs and VA patients. Information was disseminated for a B-cell depleting therapy ublituximab (Briumvi™).

Clinical Care/Informatics Table 6: Percentage of Veterans with MS in the MSSR taking DMT by age group.

Age Group (yrs.)	Total MSSR Pts	% Each Age Group Over Total	MSSR Pts Ever Taking a DMT	% Each Age Group Ever Taken a DMT	MSSR Pts Currently Taking a DMT	% Each Age Group Currently Taking a DMT
All ages	2,449	100%	1,847	75.42%	1,341	54.76%
21-30	21	0.86%	19	90.48%	15	71.43%
31-40	214	8.74%	189	88.32%	154	71.96%
41-50	382	15.60%	343	89.79%	290	75.92%
51-60	570	23.27%	483	84.74%	396	69.47%
61-70	595	24.30%	444	74.62%	300	50.42%
71-80	552	22.54%	329	59.60%	170	30.80%
81+	115	4.70%	40	34.78%	16	13.91%

Clinical Care/Informatics Table 7: Unique prescriptions for Veterans with MS taking specific DMTs, by year. Numbers do not reflect prescriptions provided to Veterans with MS receiving their MS care through the Office of Community Care. Not applicable (NA) is used when the year is prior to FDA-approval.

Medication Class oral & injectables	DMT Name	FY19	FY20	FY21	FY22
Glatiramer	Glatiramer Acetate (generic, Glatopa®, Copaxone®)	1,914	1,707	1,561	1,362
Interferons	Interferon Beta-1a (Avonex®, Rebif®)	1,131	979	836	708
	Peginterferon Beta-1a (Plegridy®)	43	41	2	4
	Interferon Beta-1b (Extavia®, Betaseron®)	270	226	195	162
Fumarates	Dimethyl Fumarate (generic, Tecfidera®)	2,084	1,973	1,967	1,832
	Diroximel Fumarate (Vumerity®)	0	3	26	35
	Monomethyl Fumarate (Bafiertam™)	0	0	0	0
S1P inhibitors	Fingolimod (Gilenya®)	477	453	419	396
	Ozanimod (Zeposia®)	NA	2	9	19
	Ponesimod (Ponvory™)	NA	NA	1	1
	Siponimod (Mayzent®)	2	22	37	59
B cell depleting agents	Ofatumumab (Kesimpta®)	NA	NA	31	74
Other	Cladribine (Mavenclad®)	14	9	15	18
	Teriflunomide (Aubagio®)	468	562	611	620
Medication Class infusions	Total oral and injectable DMT	6,403	5,977	5,708	5,286
B cell depleting agents	Ocrelizumab (Ocrevus™)	651	1,098	1,279	1,489
	Rituximab (Rituxan®, biosimilar Tuxima)	407	525	512	514
	Ublituximab (Briumvi™)	NA	NA	NA	NA
Other	Alemtuzumab (Lemtrada®)	27	51	1	0

	Natalizumab (Tysabri®)	335	270	217	190
Total Infusion DMT	Total Infusion DMT	1,420	1,944	2,008	2,193
Total DMT	Total DMT	7,823	7,921	7,716	7,479

Data source: Neurology Cube, MSSR

TELEHEALTH UTILIZATION

Telehealth utilization including video encounters and telephone encounters in FY22 was slightly lower than in FY21 possibly reflecting a return to face-to-face encounters as COVID restrictions eased.

Clinical Care Informatics Table 8: Telehealth Utilization for FY21 - FY22 (Oct 1, 2020 - Sep 30, 2022).

Telehealth Variable	FY21 Veterans with MS Having At Least One of the Defined Encounters, n	FY21 Total Encounters, n	FY21 Mean Encounters Per Veteran, n	FY22 Veterans with MS, n	FY22 Total Encounters, n	FY22 Mean Encounters Per Veteran, n
Unique Veterans with MS	19,805			19,172		
Outpatient encounters	19,783	1,247,089	63.0	18,849	1,231,700	65.4
Telehealth encounters	18,955	355,107	18.7	17,767	295,926	16.7
Telehealth encounters using video	10,440	76,068	7.3	9,875	67,558	6.8
Telehealth encounters using telephone	18,582	249,930	13.5	17,170	199,350	11.6

MS & COVID-19 CASES IN THE VA

Cumulative to the end of FY22, 3% of Veterans with MS contracted COVID-19. COVID-19 was the reason for hospitalization among 11% of all hospitalizations occurring in Veterans with MS. COVID-19 caused 12% of the deaths among in Veterans with MS. Table 9 shows the breakdown between VISNs of these statistics.

Clinical Care/Informatics Table 9. MS Veterans with COVID-19 (COVID-MS) cumulative through end of FY22, by VISN.

	COVID-MS (n, % All Veterans with MS)	Inpatient COVID-MS (n, % Inpatient for All Veterans with MS)	COVID-MS Deaths (n, % Deaths in All Veterans with MS)
TOTAL	627 (3.2%)	195 (10.5%)	74 (11.8%)
VISN 1	33 (3.5%)	7 (9.5%)	4 (12.1%)
VISN 2	54 (5.4%)	23 (13.4%)	11 (20.4%)
VISN 4	41 (4.2%)	10 (13.5%)	3 (7.3%)
VISN 5	30 (3.8%)	5 (7.9%)	2 (6.7%)
VISN 6	51 (3.5%)	8 (10.1%)	4 (7.8%)

	COVID-MS (n, % All Veterans with MS)	Inpatient COVID-MS (n, % Inpatient for All Veterans with MS)	COVID-MS Deaths (n, % Deaths in All Veterans with MS)
VISN 7	56 (4.2%)	11 (10.6%)	5 (8.9%)
VISN 8	103 (5.8%)	22 (11.5%)	4 (3.9%)
VISN 9	38 (4.6%)	4 (4.3%)	1 (2.6%)
VISN 10	69 (4.0%)	16 (11.1%)	12 (17.4%)
VISN 12	40 (4.1%)	5 (4.8%)	3 (7.5%)
VISN 15	34 (4.4%)	9 (12.7%)	3 (8.8%)
VISN 16	52 (4.6%)	15 (16.7%)	3 (5.8%)
VISN 17	28 (2.3%)	8 (9.1%)	3 (10.7%)
VISN 19	42 (3.0%)	8(9.3%)	2 (4.8%)
VISN 20	31 (2.2%)	11 (15.5%)	1 (3.2%)
VISN 21	37 (3.7%)	8 (10.0%)	2 (5.4%)
VISN 22	86 (5.7%)	17 (9.6%)	8 (9.3%)
VISN 23	54 (5.0%)	8 (10.3%)	3 (5.6%)

Source: VA CDW

CLINICAL DEMONSTRATION PROJECTS

Clinical Demonstration Projects are utilized to focus efforts on pressing aspects of MS clinical care for Veterans. The projects listed below aim to improve clinical communication in clinic notes (Quality Indicators), high quality documentation and access to medications (Cerner Templates and Order Sets), and reduce waste by standardizing MRI acquisition across VA Radiology Departments such that scans can be accurately compared across sites and over time. In addition, the unique impacts of COVID-19 on Veterans with MS are being studied in the MSSR/COVID Project.

1. **Quality Indicators.** Three quality indicators were chosen in FY21 to reflect and encourage high quality MS care in documentation of clinical notes. These were 1. Diagnosis of MS, 2. MS subtype, and 3. A DMT when appropriate to the subtype. The utilization of these indicators was evaluated FY22 nationally by Regional Program vs smaller program type. The results of the baseline evaluation were based on a random sampling of 1,300 chart notes by the company Quality Insights®. Nationally, MS diagnosis was recorded in 97% of notes, MS subtype in 49% of notes, and DMT discussion in 71%. Regional Programs performed slightly better than smaller programs in MS subtype documentation. An education campaign including articles in newsletters, emailed quizzes, and presentations at national meetings shared the results. An instructional video was posted on the VA MSCoE website to demonstrate how to add these three elements to coding and in the clinical note. A re-evaluation of the quality indicators is planned for FY23 to understand the efficacy of the education campaign.
2. **Cerner Templates and Order Sets.** In FY22, Cerner templates and order sets were updated and tested in a virtual space. Evaluation of function at live Cerner sites is planned for FY23.
3. **MRI scans are vital to evaluation of Veterans with MS.** To facilitate comparison of MRIs across facilities, a goal is to standardize the acquisition of MRIs across all VA Radiology departments. In FY22, a plan was developed with the Research Core to educate and implement this standardization process. The plan for FY23 is to implement the plan at MS Regional Programs.
4. **MSSR/COVID Project.** MS Veterans with COVID were collected during FY22 into the MSSR. Interim outcomes were presented at national meetings. The plan for FY23 is to increase the representation of COVID positive Veterans with MS in the MSSR and to report the unique experiences of MS Veterans with COVID.

RESEARCH CORE

OBJECTIVES

Conduct clinical science, health services, rehabilitation, and biomedical laboratory research relevant to the care of Veterans with MS.

Disseminate research findings through publications, presentations, abstracts, and clinical practice guidelines.

Enhance collaboration among VA medical facilities and increase the participation of Veterans in research activities.

Provide research mentorship for the next generation of VA MS scientists.

APPROVED INSTITUTIONAL REVIEW BOARDS PROTOCOLS

Active Research Grants and IRBs

Goal: n=4 / **Achievement:** n=39 / **Newly funded:** n=4 / **Unfunded active projects:** n=6

Veteran Health Administration (n=7)

Grant Title	Investigator(s)	Mechanism	Amount	Years	Category
A Pilot Trial to Study the Effects of Oral MitoQ on Fatigue in MS	V. Yadav (PI)	Merit	\$300,000	4/2020 - 11/2023	Clinical Science
Evaluation of a Spasticity Management Program for People with MS	L. Hugos (PI) M. Cameron (Co-I)	Merit	\$1,194,445	10/2017 - 6/2022	Rehabilitation
Immunoregulation of Myelin-Specific T Lymphocytes	A. Vandembark (PI)	Merit	\$675,000	4/2016 - 12/2024	Biomedical Laboratory
Improving the assessment of myelin and axonal integrity in early MS	F. Bagnato (PI)	Merit	\$945,462	7/2021 - 6/2025	Clinical Science
Preclinical Translational Studies with DRH	A. Vandembark (PI)	Merit	\$930,000	4/2020 - 3/2024	Biomedical Laboratory
Retinal Microvasculature as a Predictor of Neurodegeneration in MS	E. Silbermann (PI)	CDA2	\$1,382,087	10/2020 - 9/2025	Clinical Science

National MS Society (n=8, *2 newly funded)

Grant Title	Investigator(s)	Mechanism	Amount	Years	Category
7T-rings as biomarker of disease severity	F. Bagnato (PI)	Research Grant	\$668,000	10/2019 - 9/2023	Clinical Science
7T-rings as biomarker of disease severity (extension) *	F. Bagnato (PI)	Research Grant	\$167,000	10/2023 - 9/2024	Clinical Science
Development and feasibility of a fatigue self-management	J. Haselkorn (Co-I) A. Turner (Co-I)	Research Grant	\$700,429	07/2021 - 06/2026	Clinical Science

Grant Title	Investigator(s)	Mechanism	Amount	Years	Category
mHealth program for persons with MS					
Mentor-based fellowship in rehabilitation research: the Seattle collaborative fellowship	J. Haselkorn (Co-I) A. Turner (Co-I)	Mentor-based Post-doctoral Fellowship	\$401,426	07/2018 - 6/2023	Rehabilitation
OHSU Institutional Clinical Training Award	V. Yadav (PI) M. Cameron (Co-I)	Institutional Clinical Training Award	\$584,375	7/2020 - 6/2025	Clinical Science
Randomized Controlled Trial of a Multicomponent Walking Aid Program for People with MS	L. Hugos (PI) M. Cameron (Co-I)	Research Grant	\$624,956	10/2019 - 7/2023	Rehabilitation
The development of a convolutional neural network for MRI prediction of progression and treatment response in progressive forms of MS *	D. Harrison (PI)	Research Grant	\$586,820	5/2022 - 4/2025	Clinical Science

National Institute of Health (n=8)

Grant Title	Investigator(s)	Mechanism	Amount	Years	Category
Aerobic exercise to improve mobility in MS: optimizing design and execution for a full-scale multimodal remyelination clinical trial	L. Wooliscroft (PI)	Loan Repayment Program	\$100,000 in student loan repayment	9/2021 - 8/2023	Rehabilitation
Aerobic Exercise to Improve Mobility in MS: Optimizing Design and Execution for a Full-Scale Multimodal Remyelination Clinical Trial	L. Wooliscroft (PI)	K23	\$638,916	7/2020 - 6/2025	Rehabilitation
Development of DR α 1-MOG-35-55 for Treatment of DR2-Negative MS Subjects	A. Vandembark (Co-PI)	R44	\$998,210	4/2020 - 3/2023	Biomedical Laboratory
In vivo assessment of meningeal inflammation and its clinical impact in MS by 7 Tesla MRI	D. Harrison (PI)	R01	\$1,796,000	2/2018 - 6/2023	Clinical Science
Longitudinal measurements of neurodegeneration in two murine models of MS: a clinical and histopathologic validation study	F. Bagnato (Co-PI)	R21	\$239,332	4/2021 - 4/2023	Biomedical Laboratory

Others (n=10, *2 newly funded)

Grant Title	Investigator(s)	Mechanism	Amount	Years	Category
4 th Annual MS and CNS Neuroimmunology Symposium	V. Yadav (PI)	PVA	\$15,000	6/2021 - 5/2022	Educational symposium

Grant Title	Investigator(s)	Mechanism	Amount	Years	Category
Aerobic exercise to improve mobility in MS: optimizing design and execution for a full-scale multimodal remyelination clinical trial	L. Wooliscroft (PI)	Clinical and Translational Research Center CDA	\$20,000	4/2020 - 6/2022	Rehabilitation
American registry for Care in MS	D. Harrison (Co-I)	Foundation of the CMSC	\$195,250	3/2018 - 2/2023	Clinical Science
Assessing Aerobic Exercise as a Remyelination Therapy in MS	L. Wooliscroft (PI)	Medical Research Foundation	\$49,400	2/2021 - 1/2023	Rehabilitation
Establishment of the OHSU MS Center Lifestyle MS Cohort *	V. Yadav (PI)	OHSU Faculty Initiative Pool Grant	\$38,000	1/2022 - 12/2022	Clinical Science
Novel Biomarkers of Neural Repair in MS	L. Wooliscroft (PI)	Myelin Repair Foundation	\$24,964	11/2020 - 6/2025	Rehabilitation
Pilot study of meningeal inflammation on 7T MRI as a tool for measuring and predicting ocrelizumab response in MS	D. Harrison (PI)	Genentech, Inc.	\$1,104,000	6/2018 - 8/2022	Clinical Science
The adaptive optics retinal imaging in MS *	D. Harrison (PI)	Department of Defense	\$905,006	9/2022 - 9/2025	Clinical Science
The effect of natalizumab on blood brain barrier permeability	F. Bagnato (PI)	Biogen Idec	\$226,669	1/2011 - 12/2025	Clinical Science
The effects of aerobic exercise on structural, functional, and blood biomarkers of remyelination and neural repair in MS	W. Rooney (PI) L. Wooliscroft (Co-I)	Myelin Repair Foundation and EMD Serono	\$49,840	8/2021 - 7/2025	Rehabilitation

Unfunded or Previously Funded Active Institutional Review Board-Approved Projects (n=6)

- “Chronic Opioid Use in MS”: Turner, Haselkorn, Leipertz
- “Retinal Microvasculature of MS patients with Acute Enhancing Lesions”: Silbermann
- “PET and MRS in Progressive MS”: Spain
- “Virtual Dynamic Gait Index Validation Study”: Cameron and Chen
- “Identification of factors influencing treatment adherence and outcomes of suboptimal adherence among Veterans with MS”: Turner, Haselkorn

MULTI-SITE COLLABORATIVE RESEARCH

Grant Title	Investigator(s)	Mechanism	Amount	Years	Category
A Multicenter Randomized Controlled Trial of Best	V. Yadav (site PI)	R01	\$1,622,430 per	12/2019 - 12/2025	Clinical science, multi-site

Grant Title	Investigator(s)	Mechanism	Amount	Years	Category
Available Therapy versus Autologous Hematopoietic Stem Cell Transplant for Treatment-Resistant Relapsing MS			participant		
Lipoic Acid for the Treatment of Progressive MS	R. Spain (PI) J. Haselkorn (site PI) M. Wallin (site PI) P. Soldan (site PI)	Merit	\$1,296,594	5/2018 - 9/2023	Clinical Science, multi-site
Lipoic Acid for the Treatment of Progressive MS: Multi-Site Randomized Controlled Trial of Lipoic Acid in Progressive MS	R. Spain (PI)	Research Grant	\$1,180,579	10/2017 - 6/2024	Clinical Science, multi-site
Pooled analysis of MS findings on multi-site 7 tesla MRI	D. Harrison	R01	\$2,439,574	7/2020-6/2026	Clinical Science, multi-site
Pooled analysis of MS findings on multi-site 7 Tesla MRI	D. Harrison (PI)	R01	\$2,000,000	9/2020 - 9/2025	Clinical science, multi-site

PEER REVIEWED PUBLICATIONS

(articles appearing on Pub Med during FY22: 10-01-21 / 09-30-22)

Goal: n=25 / **Achievement:** n=32 (Impact Factor (IF) with Cite Score listed)

1. Arpan I, Shah VV, McNames J, Harker G, Carlson-Kuhta P, **Spain R**, El-Gohary M, Mancini M, Horak FB. Fall Prediction Based on Instrumented Measures of Gait and Turning in Daily Life in People with MS. *Sensors (Basel)*. 2022 Aug 9;22(16):5940. doi: 10.3390/s22165940. PMID: 36015700; PMCID: PMC9415310. IF=6.4
2. **Bagnato F, Wallin M**. Harmonizing Magnetic Resonance Imaging Protocols for Veterans With MS. *Fed Pract*. 2022 Apr;39(Suppl 1):S10-S13. doi: 10.12788/fp.0251. Epub 2022 Apr 12. PMID: 35765691; PMCID: PMC9227743. (No IF listed)
3. Bebo B, Cintina I, LaRocca N, Ritter L, Talente B, Hartung D, Ngorsuraches S, **Wallin M**, Yang G. The Economic Burden of MS in the United States: Estimate of Direct and Indirect Costs. *Neurology*. 2022 May 3;98(18):e1810-e1817. doi: 10.1212/WNL.0000000000200150. Epub 2022 Apr 13. PMID: 35418457; PMCID: PMC9109149. IF=11.1
4. **Cameron MH**, Hildebrand A, **Hugos CL**, Judd GI, McMillan G, Jacobs PG. Free From Falls education and exercise program for reducing falls in people with MS: A randomized controlled trial. *Mult Scler*. 2022 May;28(6):980-988. doi: 10.1177/13524585211046898. Epub 2021 Oct 1. PMID: 34595963. IF=9.6
5. Clarke MA, Archer D, Yoon K, Oguz I, Smith SA, Xu J, Cutter G, **Bagnato F**. White matter tracts that overlap with the thalamus and the putamen are protected against MS pathology. *Mult Scler Relat Disord*. 2022 Jan;57:103430. doi: 10.1016/j.msard.2021.103430. Epub 2021 Dec 3. PMID: 34922252. IF=5.0
6. Cohen JA, **Cameron MH**, Goldman MD, Goodman AD, Miller AE, Rollins A, Llorens L, Patni R, Elfont R, Johnson R. A Phase 3, double-blind, placebo-controlled efficacy, and safety study of ADS-5102 (Amantadine) extended-release capsules in people with MS and walking impairment. *Mult Scler*. 2022 Apr;28(5):817-830. doi: 10.1177/13524585211035333. Epub 2021 Aug 27. PMID: 34449295; PMCID: PMC8978468. IF=9.6
7. Combes AJE, O'Grady KP, Rogers BP, Schilling KG, Lawless RD, Visagie M, Houston D, Prock L, Malone S, Satish S, Witt AA, McKnight CD, **Bagnato F**, Gore JC, Smith SA. Functional connectivity in the dorsal network of the cervical

- spinal cord is correlated with diffusion tensor imaging indices in relapsing-remitting MS. *Neuroimage Clin.* 2022;35:103127. doi: 10.1016/j.nicl.2022.103127. Epub 2022 Jul 27. PMID: 35917721; PMCID: PMC9421501. IF=8.2
8. Dai X, Wang Y, Li Y, Zhong Y, Pei M, Long J, Dong X, Chen YL, Wang Q, Wang G, Gold BG, **Vandenbark AA**, Neve KA, Offner H, Wang C. Tyrphostin A9 protects axons in experimental autoimmune encephalomyelitis through activation of ERKs. *Life Sci.* 2022 Apr 1;294:120383. doi: 10.1016/j.lfs.2022.120383. Epub 2022 Feb 7. PMID: 35143827; PMCID: PMC8920308. IF=8.0
 9. Gomes KE, Ruiz JA, Raskin SA, **Turner AP**, DelMastro HM, Neto LO, Gromisch ES. The Role of Cognitive Impairment on Physical Therapy Attendance and Outcomes in MS. *J Neurol Phys Ther.* 2022 Jan 1;46(1):34-40. doi: 10.1097/NPT.0000000000000375. PMID: 34507342. IF=5.8
 10. Gromisch ES, **Turner AP**, Gangi A, Neto LO, Foley FW. What factors are associated with resilience in persons with MS? The role of personality traits. *Rehabil Psychol.* 2022 Sep 15. doi: 10.1037/rep0000468. Epub ahead of print. PMID: 36107690. IF=5.4
 11. Gromisch ES, **Turner AP**, **Leipertz SL**, Beauvais J, **Haselkorn JK**. Demographic and Clinical Factors Are Associated With Frequent Short-Notice Cancellations in Veterans With MS on Disease Modifying Therapies. *Arch Phys Med Rehabil.* 2022 May;103(5):915-920.e1. doi: 10.1016/j.apmr.2021.10.004. Epub 2021 Oct 22. PMID: 34695387. IF=6.0
 12. Gromisch ES, **Turner AP**, **Leipertz SL**, Neto LO, Beauvais J, **Haselkorn JK**. Comorbidities as predictors of all-cause emergency department utilization among veterans with MS. *Mult Scler Relat Disord.* 2022 Jun;62:103806. doi: 10.1016/j.msard.2022.103806. Epub 2022 Apr 15. PMID: 35452963. IF=5.0
 13. Gromisch ES, **Turner AP**, Neto LO, **Haselkorn JK**, Raskin SA. Identifying prospective memory deficits in MS: Preliminary evaluation of the criterion and ecological validity of a single item version of the memory for intentions test (MIST). *Clin Neuropsychol.* 2022 Apr 10:1-16. doi: 10.1080/13854046.2022.2062451. Epub ahead of print. PMID: 35403570. IF=5.9
 14. Judd GI, Hildebrand AD, Goldman MD, **Cameron MH**. Relationship between balance confidence and social engagement in people with MS. *Mult Scler Relat Disord.* 2022 Jan;57:103440. doi: 10.1016/j.msard.2021.103440. Epub 2021 Dec 3. PMID: 34922250. IF=5.0
 15. Khayat-Khoei M, Bhattacharyya S, Katz J, **Harrison D**, Tauhid S, Brusio P, Houtchens MK, Edwards KR, Bakshi R. COVID-19 mRNA vaccination leading to CNS inflammation: a case series. *J Neurol.* 2022 Mar;269(3):1093-1106. doi: 10.1007/s00415-021-10780-7. Epub 2021 Sep 4. PMID: 34480607; PMCID: PMC8417681. IF=7.6
 16. **Knowles LM**, **Hugos CL**, **Cameron MH**, **Haselkorn JK**, Bourdette DN, **Turner AP**. Moderators of Improvements in Fatigue Impact After a Self-management Intervention in MS: A Secondary Analysis of a Randomized Controlled Trial. *Am J Phys Med Rehabil.* 2022 Apr 1;101(4):405-409. doi: 10.1097/PHM.0000000000001861. PMID: 34347626. IF=3.5
 17. **Knowles LM**, Tingey JL, Newman AK, von Geldern G, Alschuler KN. A comparison of anxiety symptoms and correlates of anxiety in people with progressive and relapsing-remitting MS. *Mult Scler Relat Disord.* 2022 Jul;63:103918. doi: 10.1016/j.msard.2022.103918. Epub 2022 May 28. PMID: 35700673. IF=5.0
 18. **Leekoff M**, **Culpepper W**, **Jin S**, **Lee-Wilk T**, **Wallin M**. Impact of comorbid post-traumatic stress disorder on MS in military veterans: A population-based cohort study. *Mult Scler.* 2022 Jul;28(8):1257-1266. doi: 10.1177/13524585211058361. Epub 2021 Dec 2. PMID: 34854320. IF=9.6

19. Mizell R, Chen H, Lambe J, Saidha S, **Harrison DM**. Association of retinal atrophy with cortical lesions and leptomeningeal enhancement in MS on 7T MRI. *Mult Scler*. 2022 Mar;28(3):393-405. doi: 10.1177/13524585211023343. Epub 2021 Jun 14. PMID: 34125629; PMCID: PMC8669055. IF=9.6
20. Norton J, Joos S, **Cameron MH, Hugos CL**. A multisite randomized controlled trial of two group education programs for fatigue in MS: Very long term (5-6 year) follow-up at one site. *Mult Scler J Exp Transl Clin*. 2021 Nov 25;7(4):20552173211054454. doi: 10.1177/20552173211054454. PMID: 34868627; PMCID: PMC8637710. IF=3.3
21. O'Grady KP, Satish S, Owen QR, Box BA, **Bagnato F**, Combes AJE, Cook SR, Westervelt HJ, Feiler HR, Lawless RD, Sarma A, Malone SD, Ndolo JM, Yoon K, Dortch RD, Rogers BP, Smith SA. Relaxation-Compensated Chemical Exchange Saturation Transfer MRI in the Brain at 7T: Application in Relapsing-Remitting MS. *Front Neurol*. 2022 Feb 25;13:764690. doi: 10.3389/fneur.2022.764690. PMID: 35299614; PMCID: PMC8923037. IF=4.6
22. O'Neal MA, Zecavati N, Yu M, **Spain R**, Friedenbergs SM, El Hussein N, Torres-Russotto DR, Feliciano B, Spears R, Baca C. Effects of Fragmentation and the Case for Greater Cohesion in Neurologic Care Delivery. *Neurology*. 2021 Nov 18;10.1212/WNL.0000000000013079. doi: 10.1212/WNL.0000000000013079. Epub ahead of print. PMID: 34795048. IF=11.1
23. Pitt D, Lo CH, Gauthier SA, Hickman RA, Longbrake E, Airas LM, Mao-Draayer Y, Riley C, De Jager PL, Wesley S, Boster A, Topalli I, **Bagnato F**, Mansoor M, Stuve O, Kister I, Pelletier D, Stathopoulos P, Dutta R, Lincoln MR. Toward Precision Phenotyping of MS. *Neurol Neuroimmunol Neuroinflamm*. 2022 Aug 30;9(6):e200025. doi: 10.1212/NXI.0000000000200025. PMID: 36041861; PMCID: PMC9427000. IF=9.1
24. Shangraw K, Murchison CF, **Silbermann E, Spain RI**. Effect of Vascular Comorbidity on Visual and Disability Outcomes in a Secondary Progressive MS Clinical Trial Cohort. *Int J MS Care*. 2022 Jul-Aug;24(4):169-174. doi: 10.7224/1537-2073.2021-049. Epub 2022 Apr 18. PMID: 35875461; PMCID: PMC9296056. IF=3.7
25. **Spain R**. Approach to Symptom Management in MS With a Focus on Wellness. *Continuum (Minneapolis)*. 2022 Aug 1;28(4):1052-1082. doi: 10.1212/CON.0000000000001140. PMID: 35938657. IF=5.5
26. **Spain RI**, Andeen NK, Gibson PC, Samuels MH, Morris CD, Solomon AJ, Solomon R, Waslo C, Avasare RS. Lipoic acid supplementation associated with neural epidermal growth factor-like 1 (NELL1)-associated membranous nephropathy. *Kidney Int*. 2021 Dec;100(6):1208-1213. doi: 10.1016/j.kint.2021.10.010. Epub 2021 Oct 16. PMID: 34662650; PMCID: PMC8628858. IF=17.3
27. Stienstra N, Horton J, Lane M, Kumthekar A, Sathe N, Sunny C, **Yadav V**, Deodhar A. Demyelinating Disease After Exposure to Tumor Necrosis Factor α Inhibitors: A Case Series in a Tertiary Care Center. *J Clin Rheumatol*. 2022 Mar 1;28(2):e638-e641. doi: 10.1097/RHU.0000000000001789. PMID: 34538848. IF=2.2
28. **Vandenbark AA**, Meza-Romero R, Wiedrick J, Gerstner G, Headrick A, Kent G, Seifert H, Benedek G, Bucala R, Offner H. Brief report: Enhanced DR α 1-mMOG-35-55 treatment of severe EAE in MIF-1-deficient male mice. *Cell Immunol*. 2021 Dec;370:104439. doi: 10.1016/j.cellimm.2021.104439. Epub 2021 Sep 11. PMID: 34607646; PMCID: PMC8920317. IF=8.4
29. **Vandenbark AA**, Meza-Romero R, Wiedrick J, Gerstner G, Seifert H, Kent G, Piechycna M, Benedek G, Bucala R, Offner H. "Near Cure" treatment of severe acute EAE in MIF-1-deficient female and male mice with a bifunctional MHCII-derived molecular construct. *Cell Immunol*. 2022 Aug;378:104561. doi: 10.1016/j.cellimm.2022.104561. Epub 2022 Jun 11. PMID: 35738135. IF=8.4
30. **Vandenbark AA**, Offner H, Matejuk S, Matejuk A. Microglia and astrocyte involvement in neurodegeneration and brain cancer. *J Neuroinflammation*. 2021 Dec 23;18(1):298. doi: 10.1186/s12974-021-02355-0. PMID: 34949203; PMCID: PMC8697466. IF=13.4

31. Yoon K, Archer DB, Clarke MA, Smith SA, Oguz I, Cutter G, Xu J, **Bagnato F**. Transcallosal and Corticospinal White Matter Disease and Its Association With Motor Impairment in MS. *Front Neurol*. 2022 Jun 15;13:811315. doi: 10.3389/fneur.2022.811315. PMID: 35785345; PMCID: PMC9240189. IF=4.6
32. Zivadinov R, Bergsland N, Jakimovski D, Weinstock-Guttman B, Benedict RHB, Riolo J, Silva D, Dwyer MG; **DeepGRAI Registry Study group (Bagnato F)**. Thalamic atrophy measured by artificial intelligence in a multicenter clinical routine real-word study is associated with disability progression. *J Neurol Neurosurg Psychiatry*. 2022 Jul 28:jnnp-2022-329333. doi: 10.1136/jnnp-2022-329333. Epub ahead of print. PMID: 35902228. IF=15.1

POSTER PRESENTATIONS

(Research conference presentations and invited talks during FY22: 10-01-21/ 09-30-22)

Goal: n =4 / **Achievement:** n=30 / *refers to a platform presentation: n=12

European Conference for Treatment in MS Congress (Vienna, Austria [hybrid] - Oct 2021)

1. Chase E, Lane M, **Wooliscroft L**, Adams C, Srikanth P, **Silbermann E**, **Rice J**, **Hollen C**, Fryman A, **Chen V**, **Martin K**, **Vong C**, **Orban A**, **Khan A**, **Horgan A**, **Yadav V**. A randomized, controlled trial of low-fat diet for fatigue in MS. Poster Presentation.

Americas Committee for Treatment & Research in MS Forum (West Palm Beach, FL [hybrid] - Feb 2022)

2. **Bagnato F**. Chronic active lesions in MS: a consensus statement. Platform presentation. *
3. Chase E, Lane M, **Wooliscroft L**, Adams C, Srikanth P, **Silbermann E**, **Rice J**, **Hollen C**, Fryman A, **Chen V**, **Martin K**, **Vong C**, **Orban A**, **Yadav V**. A Randomized, Controlled Trial of Low-Fat Diet for Fatigue in MS. Poster Presentation.
4. **Choi S**, **Harrison DM**. Combined 7-Tesla MRI and clinical features in Random Forests and eXtreme Gradient Boost machine learning algorithms for MS progression status classification. Poster presentation.
5. **Cohen AH**, **Allette YM**, **Choi S**, **Harrison DM**. Relationship of Leptomeningeal, Peri-venous, and Dural Enhancement on 7T MRI with Age and Disease Severity in MS. Poster presentation.
6. **Kovalick K**, **Hammer DX**, **Liu Z**, **Saeedi O**, **Harrison DM**. Characterization of MS Pathology in Retinal Ganglion Cells and Axonal Bundles by Adaptive Optics-Optical Coherence Tomography. Poster presentation.
7. **Martin K**, **Garavatti E**, **Ahmadi S**, **Wiebers Jensen M**, **Yadav V**. Full Clinical Recovery of a Severe Presentation of ADEM Associated with MOG Autoantibodies Following Primary Infection with EBV in a Pediatric Patient. Poster Presentation.
8. **Silbermann E**, **Spain R**, **Chase E**, **Huang E**, **Bourdette D**. Using Optical Coherence Tomography Angiography to Capture Dynamic Retinal Vascular Changes in Early Demyelinating Disease. Poster presentation.
9. **Spain R**, **Bostick M**, **Casaccia P**, **Fitzgerald K**, **Giesser B**, **Mowry EM**, **Piccio L**, **Wahls T**, **Wingo B**, **Yadav V**, **Zackowski K**, **Katz Sand I**. Summary of Diet Intervention Studies in MS from the NMSS Nutrition Wellness Subgroup. Poster Presentation.
10. **Spain R**, **Kundu P**, **Kanon Y**, **Cody N**, **Holden S**, **Kessler K**, **Matsumoto S**, **Soumyanath A**, **Grey N**, **Sherman LS**, **Raber J**. Effects of Centella asiatica on cognitive function, oxidative respiration, antioxidant expression, and inflammation in experimental autoimmune encephalomyelitis. Poster presentation.

American Academy of Neurology Annual Meeting (Seattle, WA - Apr 2022)

11. **Clarke M**, **Cheek R**, **Clarke R**, **McKnight C**, **Derwenskus J**, **Eaton J**, **Fan R**, **Ye F**, **Rogers B**, **O'Grady K**, **Smith S**, **Bagnato**

F. Paramagnetic rims in treatment naïve persons at the time of MS diagnosis. Platform presentation. *

American Academy of Neurology Summer Conference (San Francisco, CA - Jul 2022)

12. Angappan D, **Hollen C**, Landreth S, **Spain R**. Acute necrotizing encephalopathy in a child with underlying RANBP2 mutation. Platform presentation. *

Consortium of MS Centers Annual Meeting (Orlando, FL [hybrid] - Oct 2021 and National Harbor, MD - Jun 2022)

13. Gangi A, Foley FW, Ruiz JA, DelMastr, H, Neto LO, Dhari Z, Lo AC, **Turner AP**, Agresta TP, Gromisch ES. Role of resilience in health behaviors in MS. Poster presentation.
14. Gromisch ES, Neto LO, **Haselkorn JK**, **Turner AP**. Insights into appointment-related factors on attendance in persons with MS. Poster presentation.
15. Hittle M, Topol B, Cutter G, **Wallin M**, **Culpepper WJ**, Langer-Gould A, Marrie R, Kaye W, LaRocca N, Nelson L. The Geographic Variation of MS Prevalence in the United States. Poster presentation.
16. Neto LO, Ruiz JA, **Turner AP**, **Haselkorn JK**, Gromisch ES. The role of comorbidities in comprehensive healthcare utilization among persons with MS. Poster presentation.
17. Nguyen C, Raskin SA, **Turner AP**, Dhari Z, Neto LO, Gromisch ES. Characterizing prospective memory errors and their neuropsychological correlations in persons with MS. Platform presentation. *

Other Conferences

18. **Knowles LM**, **Hugos CL**, **Cameron MH**, **Haselkorn JK**, Bourdette DN, **Turner AP**. Treatment improvements in depressive symptoms are associated with sustained improvements in fatigue impact in adults with MS. Poster presentation; Annual Rehabilitation Psychology Conference, Virtual due to COVID-19 (Feb 2022). Recipient of Trainee Poster Award
19. **Knowles LM**, Tingey JL, Newman AK, von Geldern G, Alschuler KN. A Comparison of Anxiety Symptoms and Correlates of Anxiety in People with Progressive and Relapsing-Remitting MS. Poster presentation at the Annual Rehabilitation Psychology Conference, Virtual due to COVID-19 (Feb 2022).
20. Altman JK, **Knowles LM**, Alschuler, KN, Day MA, Ehde DM. Validation of the Body Compassion Scale in Persons with MS Experiencing Chronic Pain. Poster presentation at the Annual Rehabilitation Psychology Conference, Virtual due to COVID-19 (Feb 2022).
21. **Knowles LM**, Kaplan DM, O'Connor MF. Secondary Outcomes of a Controlled Trial of Mindfulness and Progressive Muscle Relaxation for Grief in Widow(er)s. Poster presentation at the Annual Meeting of Society of Behavioral Medicine, Baltimore, MD (Apr 2022).
22. Kushner T, Mosquera-Lopez C, **Cameron M**, Jacobs P. Risky movement: Data-driven fall-risk assessments for targeted care in people with MS. Oregon Bioengineering Symposium, Portland, OR (Nov 2021). Platform presentation. *
23. **Wallin M**. Epstein Barr Virus and MS: Clinical Epidemiology Review. New Zealand MS Trust-Lecture Zoom Conference (Sep 2022). Invited lecture. *

EDUCATION & TRAINING CORE

Objectives

Provide a national program of MS education for HCPs, Veterans, and care partners to improve knowledge, enhance access to resources, and promote Veteran self-efficacy and treatment adherence.

Collaborate with VSOs, MS organizations, and community healthcare institutes to increase educational opportunities, share knowledge, and expand participation.

Utilize the VA MSCoE website to provide enduring educational programs, opportunities, and outreach.

Coordinate physician and psychology fellowships to develop expertise in MS healthcare.

Table Abbreviations: N = VA MSCoE Network Member; F = VA MSCoE Fellow; VA = VA employee; Non-VA = Non-VA employee

In alignment with the VA's "Mission Act Implementation" and "Customer Service" priorities, VA MSCoE ensured educational content discussed the prominent needs of Veterans with MS as well as the many VA programs, services, and choices available to Veterans with MS. VA MSCoE education and training programs for HCPs focused on delivering content-rich curricula on neurology quality improvement initiatives, medication and symptom management, and multidisciplinary care practices. Veteran education and training focused on whole health, wellness, and accessing VA and community resources. VA MSCoE and our Network collaborated and partnered with many internal program offices and external organizations, as well as our affiliated Universities.

HEALTH CARE PROFESSIONALS

VA MSCoE & National MS Society Current Topics in MS Webinars

VA MSCoE collaborated with the NMSS to produce five accredited, multidisciplinary MS webinars, with two taking place during MS Awareness month. The 60-minute webinars were recorded and stored as enduring educational material on the VA MSCoE website and NMSS YouTube website.

Education Table 1: *Current Topics in MS webinar titles, speakers, participation, and selected evaluation results.*

Title	Speaker(s)	Attendees (live/video)	Agree or Strongly Agree	
			Learned new knowledge and skills from this learning activity.	Scope of the learning activity was appropriate to my professional needs.
Bladder Dysfunction in MS	Lavelle R (non-VA)	56 /13 video	100%	87%
Translational Research: Biological Aging and Progressive MS	Segal B (non-VA)	46 /29 video	88.9%	85.2%
Increasing MS Caregiver Resiliency	Sloan A, Kazmierski M	35 /30 video	100%	96.2%
Approach to the Newly Diagnosed Patient	Bozinov N (non-VA)	56 /47 video	91.7%	89.6%
Medical Marijuana for MS Symptom Management	Cameron M	49 /77 video	89.3%	89.3%

VA MS Extension for Community Health Outcomes (ECHO) Webinars

VA MSCoE developed and collaborated with the VA ECHO team in VISN 20 to present 12 accredited, multidisciplinary MS webinars. These 70-minute programs use the ECHO framework of didactics, case presentations, and question-and-answer periods.

Education Table 2: VA MS ECHO webinar titles, speakers, participation, and selected evaluation results.

Title	Speaker(s)	Attendees	Agree or Strongly Agree	
			Content in this session was relevant to my practice.	My level of knowledge surrounding today's topic improved.
MS 101	Hillman L	8	100%	100%
Bladder and Bowel Dysfunction	Hillman L	32	89.5%	78.9%
Fatigue in MS	Hillman L	40	77.3%	86.4%
MS and Bone Health	Burgess K (N)	53	78.1%	100%
Comorbidities in MS	Hillman L	59	79.5%	93.2%
MS and Telemedicine Optimizing the Remote Examination	Wallin M	90	78.4%	80.4%
MRI in MS: Why, When, How?	Bagnato F	52	93.3%	100%
MS Pain Management	Maloni H	62	90%	92.5%
MS Nursing Specialty	Hillman L	35	94.4%	94.4%
Joy of Spasticity Management	Howard I (N)	52	80%	92.5%
Patient-Centered DMT Choices	Hillman L	50	60.9%	87%
Oral DMTs in MS	Hillman L	50	85.7%	92.9%

VA MSCoE Regional Directors Meeting

VA MSCoE-West held their annual CME meeting in collaboration with VA MSCoE-East. MS Regional and Support Program directors and coordinators were invited for the half-day program on August 4, 2022, as well as providers who have expressed interest in MS care education. There were 108 attendees at the virtual meeting, including VA MSCoE staff.




Education Table 3: Regional Meeting titles, speakers, and selected evaluation results.

Title	Speaker(s)	Learned new knowledge and skills from this learning activity.	Scope of the learning activity was appropriate to my professional needs.
VA MSCoE Overview	Haselkorn J	51.5% Strongly Agree 45.5% Agree (Total: 97%)	47.1% Strongly Agree
MS Surveillance and Neurology Data Cube	Wallin M		44.1% Agree
MS and CoVID-19	Wallin M, Yadav V		(Total: 91.2%)
Implementing MRI Guidelines in a HCS	Bagnato F		
Clinical Quality Measures	Spain R, Maloni H		

Consortium of MS Centers Annual Meeting

In FY 22 there were two CMSC annual meetings, the first being postponed due to COVID-19, October 25-28, 2021, in Orlando, FL, and the second taking place June 1-4, 2022, in National Harbor, MD. VA MSCoE staff participated in nine presentations in 2021 and four in 2022. In addition to presentations, VA MSCoE held a virtual business meeting for the 2021 conference and an in-person business meeting for the 2022 conference. VA MSCoE also coordinated scholarships for MS network members to attend the 2022 conference.

Education Images 1:

		
<p>June Halper, MSN, APN-C, FAAN, MSCN, Chief Executive Officer for CMSC, provides consortium updates at VA Business Meeting.</p>	<p>(Left-Right) Heidi Maloni, PhD, APRN, ANP, CNRN, MSCN; Francesca Bagnato, MD, PhD; Mitchell Wallin, MD, MPH; Rebecca Spain, MD, MSPH, FAAN; and Jodie Haselkorn, MD, MPH at VA MSCoE Business Meeting.</p>	<p>(Left-Right) Mark Leekoff, MD, MPH, 2021 graduated VA MSCoE East fellow, meeting current VA MSCoE East fellow Yohance Allette, MD, PhD.</p>


Education Table 4: Educational sessions at CMSC Annual Meetings with VA MSCoE staff participating.

Title	Author(s)
The Whole Health Model: Paradigm Shift in MS Care (Oct-21)	Haselkorn J, Maloni H, Reddy K (VA Whole Health), Sloan A, Miller M (N)
Choices and Controversies in MS Management: A Pro/Con Case-Based Discussion (Oct-21)	Wallin M, Cameron M, Stuve O (N), Rinker J (N), Spain R, Antonovich N (N)
Race and MS in the US: An Update from the MS Prevalence Workgroup (Oct-21)	Wallin M
Taking a Closer Look at Spasticity in Patients with MS: Am I missing the Obvious? (Oct-21)	Cameron M, Bowling A (non-VA), Weinstock-Guttman B (non-VA)
Spasticity Experience in Adults with MS: An Integrated Conceptual Model (Oct-21)	Cameron M
The Full Economic Burden of Living with MS: Implications for Practice and Care (Oct-21)	Wallin M
Addressing Diversity in the MS Caseload: Improving Cultural Competency of MS HCPs (Oct-21)	Sloan A
Beyond the Clinic-Advances in Accessibility and Targets of MS-Focused Behavioral Interventions: Telephone-delivered Psychotherapies for Mood and Physical Activity in MS (Oct-21)	Turner A
Using lipoic acid to treat MS (Oct-21)	Spain R
Addressing Diversity in the MS Caseload: Improving Cultural Competency of MS HCPs (Jun-22)	Sloan A
Current and Emerging Therapies and Symptom Management: Cultural Competence and Sensitivity for the MS Clinician (Jun-22)	Mitchell L
Integration of Quality Measures and Outcomes in MS Care (Jun-22)	Wallin M, Haselkorn J, Spain R, Bagnato F, Maloni H
The Multidisciplinary MS Care Team (Jun-22)	Cameron M, Mitchell L, Lee-Wilk T, Hugos C (N)

Paralyzed Veterans of America Healthcare Summit + EXPO

VA MSCoE had seven presentations accepted for the PVA Summit, scheduled August 29-31, 2022, in Dallas, TX, and a VA MSCoE business meeting. VA MSCoE coordinated scholarships for MS network members to attend the PVA Summit.

Educations Images 2:

			
<p>(Left-Right) Izabela Koper-Skladaniec, MD (Jackson, MS scholarship recipient); Jodie Haselkorn, MD; Glenn Graham, MD; and Robin Mack, NP (Biloxi, MS scholarship recipient) at VA MSCoE booth.</p>	<p>(Left-Right) Kenneth Walker; MeShandra Collins, MD (Washington, DC scholarship recipient); Jennissa Pressley-Burgin, SW (Tampa, FL scholarship recipient); Angela Young; and Annie Altenor, SW (Tampa, FL scholarship recipient) at VA MSCoE booth.</p>	<p>(Left-Right) Joyce Williams, LCSW, MSCS (East Orange, NJ scholarship recipient); Marguerite Allen-Wooten, LCSW (Washington, DC scholarship recipient); and Angela Young outside educational session.</p>	<p>(Left-Right) Kenneth Walker and Jaimie Henry staffing VA MSCoE exhibitor booth.</p>

Education Table 5: VA MSCoE session topics and speakers at PVA Summit.

Title	Speaker(s)
Assessment of Cognitive and Psychological Symptoms in Veterans with MS	Lee-Wilk T, Dux M (VA)
Role and Evidence for Antioxidant Therapy in the Treatment of MS	Spain R
John N. Whitaker Memorial Lecture, What's in Our Wallet? Managing Pharmacotherapy in the New Frontier	Tortorice K (VA PBM)
Harmonizing Imaging Assessments in Veterans with MS	Bagnato F, Wallin M
MS Caregivers and Coping During COVID-19 Pandemic - Increasing Caregiver Resiliency Using Telehealth Modalities	Sloan A
It Takes a Village: VA MSCOE and NMSS Partnership for Enhanced Coordination of Services for Veterans With MS	Sloan A, Lumberg H (NMSS)
Living with MS in the COVID-19 Era: Review and Case Discussion	Wallin M, Mitchell L, Harel T (F)

Oregon Health & Science University Webinars/Conferences

VA MSCoE collaborated with OHSU Brain Institute on the annual MS and CNS Neuroimmunology Symposium: Advances and Updates which occurred on September 17, 2022. The program was virtual, with waived registration for all VA employees.

Education Table 6: OHSU Advances and Updates symposium topics and speakers.

Title	Speaker(s)
Treatment Updates in MS	Wooliscroft L
COVID-19 and the Care of People with MS and Related Diseases	Cross A (non-VA)

Title	Speaker(s)
Autoimmune Neurology: Clinical and Diagnostic Update	Dubey D (non-VA)
Pediatric MOG Antibody Disease: Case-Based Presentation	Martin K (F)
CNS Vasculitis: Case-Based Presentation	Chen V (F)

Grand Rounds & Other Invited Lectures

VA MSCoE staff are nationally recognized for their expertise in MS care and research. They are often asked to present at conferences for neurology organizations, MS organizations, VA facilities, and Universities.

Education Table 7: Invited lecture and grand rounds dates, programs, topics, and speakers.

Date	Program	Title	Speaker(s)
Jan-22	American Association of Neuroscience Nurses APRN Conference	Current Management in MS	Maloni H
	American Association of Neuroscience Nurses APRN Conference	Update on Covid in Neurological Disease	Maloni H
	Kennedy Krieger Institute – High Field MRI Seminar	Insights into MS from 7T MRI	Harrison D
	OHSU Dept of Neurology Grand Rounds	Lipoic-acid membranous nephropathy-Surprise!	Spain R, Andeen N (non-VA), Avasare R (non-VA)
	Richmond VA SCI ECHO	Overview of MSCoE	Maloni H
	U of Baltimore Neurology Grand Rounds	Steroid Responsive Enhancement	Allette Y (fellow)
	U of Maryland Brain and Behavior Course	MS / Demyelinating Disorders Case Studies	Harel T (F)
	U of Michigan Dept of Physical Medicine and Rehabilitation Grand Rounds	The Invisible Symptoms of MS	Haselkorn J
Mar-22	American Association of Neuroscience Nurses Annual Conference	Complementary Medicine and Integrative Health Practices in Neurologic Disease	Maloni H
	American Association of Neuroscience Nurses Annual Conference	Pharmacology of Symptom Management in MS	Maloni H
	VA Maryland HCS Grand Rounds	Evolving Management of MS in the Era of COVID-19	Harel T (fellow)
Apr-22	Hillsboro Medical Center Grand Rounds	Cannabis and cannabinoids: Clinical considerations	Cameron M
	Penn School of Medicine MS Division Journal Club	Diet and Supplements in MS: Evidence Thus Far	Yadav V
	Stanford U MS and Neuroimmunology Journal Club	Diet and Supplements in MS: Evidence Thus Far	Yadav V
	The Chesapeake Center for ADHD, Learning and Behavioral Health	Brain and Behavior Associations in MS: Patient-Centered Practice Considerations	Lee-Wilk T, Dux M (VA)

Date	Program	Title	Speaker(s)
May-22	Medscape	Diagnosing and managing spasticity in MS: Team-based approach for better care	Cameron MH, Saulino M (non-VA), Weigel R (non-VA)
	National Institutes of Health National Center for Medical Rehabilitation Research National Advisory Board	Effects of the COVID-19 Pandemic on People with Disabilities: Pathophysiology, impairments, access, and support	Wooliscroft L
	NMSS MS Summit 2022	Motivational Interviewing and MS	Turner A
	Race to Erase MS Symposium	Lipoic acid for treatment of progressive MS	Spain R
	Race to Erase MS Symposium	MitoQ for fatigue in MS: a placebo-controlled trial	Yadav V
	Race to Erase MS Symposium	Volumetric and metabolic changes with vascular disease risk factors in MS: Baseline data from a 3-year long prospective longitudinal 7T brain MRI/MRS study	Yadav V
Jun-22	Interagency Committee on Disability Research Stakeholder Meeting	Effects of the COVID-19 Pandemic on People with Disabilities	Wooliscroft L
Aug-22	U of Texas Southwestern Grand Rounds	The Effects of the COVID-19 Pandemic of People with Neurologic Disease and other Disabilities	Wooliscroft L
Nov-21	Medscape	Taking a Closer Look at Spasticity in Patients With MS: Am I Missing the Obvious?	Cameron MH, Bowling A (non-VA), Weinstock-Guttman B (non-VA)
	U of Baltimore Lecture	MS 101 and Cognition	Maloni H
Dec-21	OHSU Myelin Interest Group	Journal Club: Remyelination Trials: Are We Expecting the Unexpected?	Wooliscroft L
	U of Maryland Clinical Experiences in Bioengineering Course	Symptomatic MS Management and Adaptive Devices	Harel T (F)

[VA MSCoE Spotlight Electronic Newsletter](#)

The monthly provider e-newsletter provides information on educational opportunities, MS news, VA publications, and clinical care recommendations. It reaches over 25,000 people with an average e-mail open rate of 24%. VA MSCoE strives to highlight the expertise and accomplishments of VA MS HCPs within our e-letter.

Educational Table 8: HCP newsletter topics, authors, number of recipients, and percentage of e-mails opened.

Title of Clinical Corner Article	Author(s)	Recipients
Relationships with Your Facility Leadership and Executive Office	Cameron M, Haselkorn J	13,133 (19% open)
Outcomes Associated with COVID-19 Infection in People with MS	Harel T (F), Wallin M	14,540 (17% open)
New National Quality Indicators for MS - Add These to Your MS Clinical Notes	Spain R, Maloni H	14,540 (22% open)

Title of Clinical Corner Article	Author(s)	Recipients
Performing an Efficient and Effective Virtual Neurological Exam	Silbermann E (N)	17,314 (24% open)
Impact of Tobacco Exposure on MS	McFaul D (F)	18,826 (23% open)
Secondary Hypogammaglobulinemia in Patients with MS	Martin K (F)	18,973 (27% open)
The VA MSCoE Network: Designed for Expert Care for all Veterans with MS	Spain R, Maloni H	19,750 (25% open)
The VA Neurology Cube and MS Case Finding	Leipertz S, Wallin M	21,135 (22% open)
Importance of Patient Education in Clinic	Miller W (N), Gibson M (VA)	22,429 (27% open)
Epstein Barr Virus and MS	Wallin M	23,594 (25% open)
Working with Pharmacy to Improve Patient Care	Antonovich N (N)	24,556 (22% open)
VA MSCoE Fellowships	Henry J	25,401 (27% open)

Fellowship Programs

Physician Fellowships

The VA Office of Academic Affiliations (OAA) Advanced Fellowship Program in MS provides two years (with a possible third-year extension) of post-residency research, education, and clinical learning opportunities to eligible physicians. The NMSS provides funding at OHSU for a one-year clinical focused fellowship. All fellows are matched with a research mentor, developing their own research study in their second year. Fellows receive clinical training at the VA and affiliated University, participate and provide education to HCP and people affected by MS.

OAA Advanced Fellowship - VA Maryland HCS

The VA MSCoE-East physician fellowship, in partnership with the University of Maryland (UoM), has an established track record of training fellows who go on to build successful practices in MS care. VA MSCoE-East had two fellows continue the VA Advanced Fellowship program in FY22.

VA Portland HCS Fellowship

VA MSCoE-West Portland has a strong mentorship plan for physician fellows, in collaboration with OHSU and the NMSS. In FY 22, VA MSCoE-West Portland had two fellows graduate, two continue into their second year, and three new fellows started in July 2022.

Education Table 9: VA MSCoE physician fellows

Location	Years	Name	Discipline	Fellowship	Mentor(s)
Baltimore, MD	2021-current	Harel T	MD	VA OAA	Harrison D, Wallin M
	2021-current	Allette Y	MD	VA OAA	Harrison D, Wallin M
Portland, OR	2022-current	Garcia Garcia C	DO, MS	VA OAA	Wooliscroft L
	2022-current	Crowson C	MD	VA OAA	Silbermann E
	2022-current	Chapman W	DO, PharmD	OHSU/NMSS	Kim E
	2021-current	Martin K	MD	VA OAA	Yadav V
	2021-current	Chen V	MD	VA OAA	Cameron M
	2021-2022	McFaul D	DO	OHSU/NMSS	Silbermann E
	2019-2022	Hollen C	MD	VA OAA	Yadav V

Other Fellowships

VA Maryland HCS Postdoctoral Fellowship in Clinical Neuropsychology

The VA Maryland HCS two-year neuropsychology fellowship, funded by the OAA, has dual goals of refining skills in neuropsychological assessment, treatment, consultation, and research relating to the needs of Veterans, as well as

facilitating the development of fellows from trainees to independent psychologists. Fellows complete a six-month rotation in conjunction with VA MSCoE-East Baltimore. Two fellows are recruited annually, with a total of four fellows in the program at any given time.

VA Seattle HCS Collaborative Post-Doctoral Fellowship in MS Rehabilitation Research

The Seattle Collaborative Fellowship, funded by the NMSS, is a mentor-based postdoctoral fellowship program in MS rehabilitation research based on a partnership between VA MSCoE-West Seattle and the University of Washington (UW) Department of Rehabilitation Medicine. The primary aim of the fellowship is to recruit new investigators and provide them with knowledge and skills to serve as successful independent researchers in the field of MS rehabilitation research. A three-year fellow graduated in August 2022.

Education Table 10: VA MSCoE psychology fellows

Location	Years	Name	Discipline	Fellowship	Mentor(s)
Baltimore, MD	2019-2022	Lee-Wilk, Terry	PhD	VA Advanced Fellowship	Lee-Wilk, Terry
Seattle, WA	2019-2022	Knowles L	PhD	U of Washington/NMSS	Turner A

On-line Survey of Provider and Veteran Educational Needs

A provider survey was developed to better understand the needs of MS HCPs and Veterans with MS. The survey was reviewed by clinical VA MSCoE staff, VA EES, and the VA liaison with the NMSS. The survey included seven multiple choice questions. The survey will be distributed in FY23 quarter 2 for input.

Objectives

- Provide a national program of MS education for HCPs, Veterans, and care partners to improve knowledge, enhance access to resources, and promote Veteran self-efficacy and treatment adherence.
- Collaborate with VSOs, MS organizations, and community healthcare institutes to increase educational opportunities, share knowledge, and expand participation.
- Utilize the VA MSCoE website to provide enduring educational programs, opportunities, and outreach.

Coordinate physician and psychology fellowships to develop expertise in MS healthcare.

PATIENT/CARE PARTNER EDUCATION PROGRAMS

VA MSCoE MS & Vets Podcast

This monthly Veteran podcast series, developed in collaboration with VA EES, discusses important issues related to the health and quality of life for Veterans with MS. Each podcast has a moderator and VA subject matter expert, with episodes ranging in length from 15-20 minutes. Podcasts are posted on 12 different app platforms. Listeners often leave comments with VA MSCoE staff providing responses, increasing interactions with our Veteran population.

Education Table 11: MS podcast topics, speakers, and views from posting to September 30, 2022.

Title of Podcast	Speaker(s)	FY Views
The Basics of VA Benefits and Resources	Kazmierski M	476
Multi-Disciplinary Care in MS: It Takes a Village	Spain R	394
Fatigue and MS	Hollen C (F)	551
Building Emotional Resilience	Brindle S (VA)	395
Benefits of Outdoor Adventure for People with MS	Knowles L (F)	352
Home Safety Evaluation	Mitchell L	250
Choosing the Best DMT for You	Rinker J (N)	303

Title of Podcast	Speaker(s)	FY Views
Pregnancy and MS	Graves J (N)	207
Exercise as an MS Therapy	Wooliscroft L	377
Complementary and Alternative Therapies and MS	Maloni H	359
Disability Progression and Aging in MS	Stuve O (N)	436
Diet and MS	Yadav V	238

VA MSCoE, National MS Society, & Paralyzed Veterans of America Webinar

VA MSCoE collaborated with the NMSS and PVA on a virtual webinar for Veterans with MS on March 15, 2022. This 1.5-hour webinar had 66 live attendees and 1,243 viewings of the recording by the end of the FY. The topic was “Adapting to a New Identity with MS” with VA MSCoE staff, Dr. Turner and Ms. Kazmierski, presenting as well as a Veteran with MS. 81% of survey respondents made new connections to information, resources, and sources of support while 85% of survey respondents reported planning to act on something they learned.

Invited Lectures

VA MSCoE staff are nationally recognized for their expertise in MS care and research. They are often asked to present at conferences or meetings for MS organizations, VA facilities, and Universities.

Education Table 12: *Invited lecture dates, programs, topics, and speakers.*

Date	Program	Title	Speaker(s)
Mar-22	NMSS Pathways to Wellness in MS	The Science Behind MS Nutrition	Yadav V
Apr-22	OHSU MS & COVID Update	Two Years Into COVID, Now What?	Yadav V
May-22	Race to Erase MS Center/ Without Wall MS Forum Webinar	COVID-19 Update: Where do we go from here and how does your MS medication impact your susceptibility?	Yadav V
Jun-22	NMSS Vienna Support Group	CAM	Maloni H
Aug-22	Ask an MS Expert Veterans Program	Veteran-Centered Cognitive Rehabilitation and Mental Health Care: A VA Whole Health Perspective	Lee-Wilk T, Dux M (VA)
Sep-22	Ask an MS Expert Program	Complementary and Integrative Health in MS	Maloni H

Oregon Health & Science University at the Frontier & Beyond Conference

VA MSCoE collaborated with OHSU on the annual “At the Frontier and Beyond” conference on June 11, 2022. The program is virtual and advertised locally to people effected by MS, and nationally to Veterans with MS.

Education Table 13: *Topics and speakers for OHSU At the Frontier and Beyond.*

Title	Speaker(s)
Aging with MS	Weinstock-Guttman B (non-VA)
Neuroradiology and MS	Petterson D (non-VA)
MS Treatment and Research Update	Silbermann E (network)

MS Veteran Newsletter

The quarterly Veteran e-newsletter is distributed to over 46,000 people interested in the disease, with an average e-mail open rate of 25%. Each issue has a Veteran focused article, two articles on MS, as well as advertising for VA and MS patient programs. Each article is posted on our website for dual utilization of content, and Veteran articles are condensed and posted on the VA News Blog, which is then shared with the local facility for promotion.

Education Table 14: Veteran newsletter topics, authors, number of recipients, and percentage of e-mails opened.

Title of Article	Author(s)	Recipients
Veterans Living with MS: Kathleen Owings	Henry J	46,767 (25% open)
Common Sleep Disorders and MS	Boudreau E (VA), Cameron M	46,767 (25% open)
How to Decrease Your Children’s Risk for MS If You Have MS	Xiang XM (F)	46,767 (25% open)
West Point graduate with MS preparing for ultra-marathon	Henry J	802 views, VA Blog
Veterans Living with MS: Kris Boudreau	Henry J	46,532 (25% open)
MS Medications: Decisions and Discussions	Tortorice K (VA PBM)	46,532 (25% open)
Epstein Barr Virus and MS	Wallin M	46,532 (25% open)
Navy Veteran with MS finds purpose in life	Henry J	1,276 views, VA Blog
Veterans Living with MS: Daniel Service	Henry J	45,678 (25% open)
Stem Cell Therapy for MS	McFaul D (F), Spain R	45,678 (25% open)
Caring for the Caregiver	Shephard J (VA)	45,678 (25% open)
Army Veteran with MS finds joy in life	Henry J	509 views, VA Blog
Veterans Living with MS: Howard "Scott" Cleland	Henry J	45,923 (26% open)
The Urinary Tract in MS	Davis N (VA)	45,923 (26% open)
Managing Spasticity	Howard I (N), Pierce D (Resident)	45,923 (26% open)
Army Veteran with MS teaches kids archery	Henry J	1,159 views, VA Blog

VA Support Groups

The VA Puget Sound HCS has a monthly virtual support group for Veterans with MS. Each month includes a presentation from an MS provider. The Washington, DC VAMC hosts a bimonthly Veteran virtual support group. Each group member is assigned to do a presentation each week, and guest speakers are invited throughout the year. The Baltimore VAMC has a virtual support group called Open MINDS (MS Intervention and Development of Skills) for Veterans with MS. It is a closed group for 6 weeks (one hour), with ongoing cohorts once an adequate number of referrals are received.

MS Education & Awareness Month

MS Education and Awareness is celebrated annually in the month of March. VA MSCoE collaborated with VA Media Relations for promotion of MS. Information was shared in *Hey VA*, *VACO News*, *VA News*, VA Twitter, and VA Facebook. An MS Awareness toolkit was created on the VHA Communications SharePoint for national Public Relations and Social Media use. A Veteran story was produced for the VA Blog and a webpage was created on the VA MSCoE website to highlight MS awareness as well as the activities for the month. The PVA, NMSS, and VA MSCoE collaborated on a Veteran webinar and two CME webinars were done in collaboration with the NMSS.

Can Do MS Take Charge Webinar

VA MSCoE collaborated with Can Do MS on the first Take Charge program for Veterans with MS September 16-17, 2022. The 1.5-day program had 43 attendees, 32 Veterans with MS and 11 support partners. Over 76% of Veteran attendees receive their care at a VA facility. Attendees rotated through four sessions. Participants were asked to complete a survey before the program and an identical post-survey. There were several areas of improvement before the program to after, with a select few listed below. Assessment of the program efficiency will be done again at 3-months and 6-months.

Confidence to deal with frustration of MS	+4%
Confidence in abilities to face challenges	+8%
Awareness of trusted resources	+15%
Feel more connected to others	+15%

Education Table 15: Take Charge program topics and moderators.

Session Topic	Moderator(s)
Mood, Cognition, and Communication	Kalb R (non-VA)
Movement and Daily Activity	Kudritzki V (VA), Kordi K (non-VA)
Finding Your Voice: Self Advocacy	Sacco M (VA), Carriere L (non-VA)
Nutrition	Togneri K (non-VA), Randolph R (VA)

UNIVERSITY AFFILIATES

Through partnerships with affiliated academic institutions, the VA conducts the largest education and training effort for health professionals in the nation.

Education Images 3:

<p>University of Maryland School of Medicine</p>  	<p>University of Washington School of Medicine</p>  	<p>Oregon Health & Science University</p>  	<p>Vanderbilt University Medical Center</p>  
---	---	--	--