OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND READINESS

DEC 20 2019

The Honorable James M. Inhofe
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The enclosed report is in response to section 711 of the National Defense Authorization Act for Fiscal Year (FY) 2010 (Public Law 111-84), which requires the Secretary of Defense to submit a report annually to the Committees on the Armed Services on Department of Defense implementation of comprehensive policy on pain management by the Military Health System (MHS) through 2018. Congress later extended that reporting requirement to 2021. Key elements of this report include a description of the policy, performance measures, adequacy and effectiveness of pain-management services, on-going pain research, provider training, patient education, and the dissemination of pain management information.

In FY 2019, the MHS continued the sustained improvement of pain-management policy, clinical care, education, and tri-Service coordination. Improved coordination and collaboration across the MHS have resulted in advances in pain-management policy, clinical care, research, education/training products, and clinical tools that serve our beneficiaries and provide an example for the nation.

Thank you for your continued support of our Service members. A similar letter is being sent to the Committee on Armed Services of the House of Representatives.

Sincerely,

James N. Stewart
Assistant Secretary of Defense for Manpower
and Reserve Affairs, Performing the Duties
of the Under Secretary of Defense for
Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable Jack Reed
Ranking Member

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND READINESS

DEC 20 2019

The Honorable Adam Smith
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The enclosed report is in response to section 711 of the National Defense Authorization Act for Fiscal Year (FY) 2010 (Public Law 111-84), which requires the Secretary of Defense to submit a report annually to the Committees on the Armed Services on Department of Defense implementation of comprehensive policy on pain management by the Military Health System (MHS) through 2018. Congress later extended that reporting requirement to 2021. Key elements of this report include a description of the policy, performance measures, adequacy and effectiveness of pain management services, on-going pain research, provider training, patient education, and the dissemination of pain management information.

In FY 2019, the MHS continued the sustained improvement of pain-management policy, clinical care, education, and tri-Service coordination. Improved coordination and collaboration across the MHS have resulted in advances in pain-management policy, clinical care, research, education/training products, and clinical tools that serve our beneficiaries, and provide an example for the nation.

Thank you for your continued support of our Service members. A similar letter is being sent to the Committee on Armed Services of the Senate.

Sincerely,

James N. Stewart
Assistant Secretary of Defense for Manpower and Reserve Affairs, Performing the Duties of the Under Secretary of Defense for Personnel and Readiness

Enclosure:
As stated

cc:
The Honorable William M. "Mac" Thornberry
Ranking Member

Report to Congress

The Implementation of a Comprehensive Policy on Pain Management by the Military Health Care System for Fiscal Year 2019

Required by: Section 711 of the National Defense Authorization Act for Fiscal Year 2010 (Public Law 111–84)

Office of the Secretary of Defense

The estimated cost of this report or study for the Department of Defense (DoD) is approximately $16,000.00 for the 2019-2020 Fiscal Year. This includes $0.00 in expenses and $16,000.00 in DoD labor.
Generated on 2019 Oct 09 Ref ID: 8-84AD914

CONTENTS

EXECUTIVE SUMMARY 3

INTRODUCTION 5

2019 UPDATE 5

Policies and Revisions 6

Performance Measures Used to Determine Effectiveness 7
Defense and Veterans Pain Rating Scale 7
Pain Assessment Screening Tool and Outcomes Registry 8

Pain Management Services 9
Comprehensive Pain Management Programs 9
Clinical Care Pathway Development 13
Stepped Care Model of Pain Management 13
Clinical Practice Guidelines 13
Alternate Input Method Forms 15
Military Health System Opioid Registry 15

Effectiveness of Pain Management Services 16

Patients' Perception of Adequacy of Pain Management Services 19

Pain Management Research 21

Training and Education of Health Care Personnel 27
Project ECHO® and National Capital Region Webinars 27
Navy Comprehensive Pain Management Lecture Series 28
Annual Pain Skills Training 28
National Capital Region Alternative Medicine for Pain Training 29
Advanced Pain Management Course 29
NCR Primary Care Monthly Case-Based Webinars 30
Prescription Drug Abuse Awareness and Training 30
Accredited Board Certification in Pain Management 31
Complementary and Integrative Medicine 32

Patient Education and Dissemination of Information 33

Summary 36

REFERENCES 37

APPENDICES 38

Appendix A: List of Acronyms 38

Appendix B: Joint Pain Education Project Curriculum 41

Appendix C: Project ECHO® Hubs and Spokes 42

EXECUTIVE SUMMARY

This is the annual report required by section 711 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2010 (Public Law 111–84). Section 711 requires the Secretary of Defense to submit an annual assessment of Military Health System (MHS) pain management to the Armed Services Committees through 2018. This requirement was extended to 2021 by section 1061 of the NDAA for FY 2017 (Public Law 114-328). Key elements include: a description of the current pain management policy and revisions; a description of the performance measures used to determine the effectiveness of policy; and an assessment of adequacy and effectiveness of pain management services, research completed or underway, training delivered to Department of Defense (DoD) health care personnel, education provided to beneficiaries, and dissemination of information on pain management to our beneficiaries.

During FY 2019, MHS continued to mature the pain management capabilities and resources for our beneficiaries and health care workforce. Improved coordination and collaboration across the Services, Defense Health Agency (DHA), and Uniformed Services University of the Health Sciences (USUHS) has resulted in several advances in pain management policy, clinical care, and fielding of innovative education, training products, and clinical tools.

The MHS pain strategy and initiatives are aligned with the 2016 National Pain Strategy and the national interest in addressing overuse of prescription pain medications. The strategy and initiatives include:

- Focusing efforts for pain management improvements and initiatives on meeting clinical and educational needs of primary care providers and patients;
- MHS implementation of the Stepped Care Model of Pain Management (SCMPM) to ensure the appropriate level of pain care is available and delivered to patients throughout the continuum of acute and chronic pain;
- Continued implementation of pain-related Clinical Practice Guidelines (CPGs), as well as continued identification of requirements for new CPGs by using resources available through Department of Veterans Affairs (VA)/DoD Health Executive Committee (HEC) Work Groups (WGs) and other WGs;
- Increasing pain telehealth integration in the National Capital Region (NCR) primary care by both direct care visits and provider webinar case-based education;
- Continued primary care pain skills training offered annually by the NCR Pain Care Initiative;
- Continued specialty care training offered annually by the NCR Pain Care Initiative;
- Continued integration of specialty care pain services in primary care and increasing access to specialized pain care in the NCR and the Services;
- Expansion of pilot in-home telehealth visits to transitioning and rural Service members and beneficiaries;
- Continued development and deployment of the Pain Assessment Screening Tool and Outcome Registry (PASTOR) to integrate the National Institutes of Health (NIH) Patient Reported Outcomes Measurement Information System into a pain registry and clinical decision-making tool for providers;

- Ongoing assessment of patient satisfaction on pain management;
- Continued execution of the Joint Pain Education Program (JPEP) in disseminating a standardized DoD and VA pain management curriculum and supplemental pain videos for widespread use in education and training programs to improve pain management competencies of the combined Federal clinical workforce;
- Participation in research efforts offered by DoD, VA, and NIH to examine non-pharmacological treatments to complex pain syndromes experienced by military populations; and
- Participation in the Department of Health and Human Services Pain Management Best Practices Inter-Agency Task Force.

Exemplary management of pain in the MHS continues to align with drivers such as the October 2015 Presidential Memorandum, "Addressing Prescription Drug Abuse and Heroin Use," the National Pain Strategy, and the Centers for Disease Control and Prevention (CDC) Guideline for Prescribing Opioids for Chronic Pain. The multiple MHS lines of effort in pain management research, clinical practice, education, and training of the MHS workforce will serve our beneficiaries and provide an example for the nation.

INTRODUCTION

MHS has been addressing the national challenges of pain management and prescription medications since the August 2009 Pain Management Task Force (PMTF) and the ongoing implementation of a comprehensive pain management policy to improve pain management care and services within DoD. The continued progress and improvement of the MHS pain strategy have been supported by the efforts of the MHS Pain Management Clinical Support Service (PMCSS), with membership from the Services, DHA, and USUHS, in collaboration with VA/DoD HEC Pain Management Work Group (PMWG), which includes subject matter experts (SMEs) from VA and MHS. Cross-Department collaboration has been critical to many MHS accomplishments and advances in pain management. The VA/DoD HEC PMWG has also improved coordination across 16 additional VA/DoD WGs chartered by the HEC. MHS also continues to implement PMTF recommendations to:

- Synchronize a culture of pain awareness, education, and proactive intervention among patients, medical staff, and leaders;
- Provide tools and infrastructure that support and encourage clinical practice and research advancements in pain management; and
- Build a full spectrum of best practices for the continuum of acute and chronic pain, based on a foundation of best available evidence.

2019 UPDATE

As presented in section 711 of the NDAA for FY 2010, this report is the FY 2019 update to the FY 2018 report on implementation of DoD comprehensive pain management policy. Per section 711 of the NDAA for FY 2010, each report shall include the following:

- Description of the policy implemented and any revisions made to the policy;
- Description of the performance measures used to determine the effectiveness of the policy in improving pain care for beneficiaries enrolled in MHS;
- Assessment of the adequacy of Department pain management services based on a current survey of patients managed in Department clinics;
- Assessment of the research projects of the Department relevant to the treatment of the types of acute and chronic pain suffered by members of the Armed Forces and their families;
- Assessment of the training provided to Department health care personnel with respect to the diagnosis, treatment, and management of acute and chronic pain;
- Assessment of the pain care education programs of the Department; and
- Assessment of the dissemination of information on pain management to beneficiaries enrolled in MHS.

Policies and Revisions

The Policy for Comprehensive Pain Management (Health Affairs Policy 11-003), signed on March 30, 2011, continues to guide pain management activities across MHS and did not require updating during this reporting period. This policy outlines requirements for appropriate assessment, treatment, and management of pain at every medical encounter in patients seeking care at military treatment facilities (MTFs), as well as pain research. The following is a description of the policy and actions implemented during the reporting period across the key policy components of: (1) pain assessment; (2) pain treatment and management; and (3) pain research. As is the case for all large population-based disease processes, the approach taken towards treatment needs to be evidence-based and utilize best practices.

Defense Health Agency – Procedural Instruction (DHA-PI), "Pain Management and Opioid Safety in the MHS," published June 8, 2018, establishes DHA's procedures to:

- Establish the MHS Stepped Care Model as the comprehensive standardized pain management model for MHS to provide consistent, quality, and safe care for patients experiencing pain, with an emphasis on non-pharmacological treatments;
- Educate patients in effective self-management of pain and injury rehabilitation;
- Educate clinicians regarding effective pain management and optimal opioid safety consistent with VA/DoD and CDC CPGs;
- Provide tools, including those through MHS GENESIS® and legacy electronic health records (EHRs), to assist clinicians in evidence-based and patient-centered pain management; and
- Conduct pain research to continuously improve the MHS approach to pain management.

DoD Instruction 6025.13, "Medical Quality Assurance (MQA) and Clinical Quality Management in the Military Health System," addresses MTF accreditation, and the requirement that all MTFs are accredited by either The Joint Commission (TJC) or another accrediting agency. By virtue of their accreditation, all MTFs have demonstrated successful adherence to the accrediting agency's pain management standards. While meeting TJC pain management standards is a significant accomplishment, MHS has continued efforts to improve its pain assessment tools and capabilities to be the industry leader in pain management.

In FY 2019, the Army published Operational Order 19-09, "Army Comprehensive Pain Management Program," to advance pain management through alignment with DHA-PI 6025.04, "Pain Management and Opioid Safety in the MHS." Army continued validation of the implementation of Execution Order (EXORD) 224.17, "Opioid Profiling Standardization," requiring a profile when prescribing opioids and allowing for transfer of vital duty-related information from provider to Commander. The Army continued to use Project Extension for Community Healthcare Outcomes (ECHO®) to provide clinical support to primary care team members.

In February 2016, the Air Force developed the Invisible Wounds of War Initiative at Eglin Air Force Base (AFB) 96th Medical Group to improve support to Airmen and their families who suffer from traumatic brain injury, post-traumatic stress, and pain. The Air Force established its

first dedicated facility for the treatment of these conditions at Eglin AFB as the Invisible Wounds Center (IWC), which opened in August 2018. The IWC brings together 37 medical and mental health experts to provide integrated, multidisciplinary and holistic care utilizing evidence-based practices in interventional pain care, acupuncture, yoga, art therapy, music therapy, Occupational Therapy/Physical Therapy/Speech/Vestibular therapies, neurology, mental health, and case management. A brand new Intrepid Spirit Center funded by the Intrepid Fallen Heroes Fund is currently under construction and will transition the IWC in June 2020.

In FY 2019, Navy has focused on comprehensive implementation of its FY 2018 Bureau of Medicine and Surgery (BUMED) Instruction 6320.101, "Long-term Opioid Therapy (LOT) Safety Program," which established policy and training requirements in accordance with the 2017 VA/DoD and 2016 CDC guidelines on prescribing opioids for Long-Term Opioid Therapy treatment of pain. Efforts are currently underway to collect updates for a reissuance of Instruction 6320.101, which will incorporate enhancements to existing CPGs including: expansion of Active Duty Service member (ADSM) chart reviews, teleconference-based assessment of pain treatment outcomes, and naloxone prescribing guidance. Throughout FY 2019, the Navy has also continued to share best practices of BUMED Instruction 6320.100, "Medical, Chiropractic, and Licensed Acupuncture," with DHA and the PMCSS, which were used to draft a DHA-PI on chiropractic and acupuncture use and management within the MHS.

Performance Measures Used to Determine Effectiveness

Defense and Veterans Pain Rating Scale

The Defense and Veterans Pain Rating Scale (DVPRS) was developed by DoD as a new pain scale designed to move beyond the current practice of focusing solely on pain intensity. DVPRS integrates an assessment of pain interference with physical function, sleep, activity, mood, and stress. As reported in several annual updates, utilization of DVPRS has continued to expand in clinical care settings across MHS, VA, and civilian medicine.

In conjunction with development of the DHA-PI for Pain Management and Opioid Safety, DoD conducted a review and analysis of the pain scales most commonly utilized in clinical practice. The results of this review and analysis determined that DVPRS was the most appropriate pain scale to be designated as the DoD standard for adolescents and adults. DVPRS was integrated into the DHA-PI for Pain Management and Opioid Safety, and DoD is developing the necessary instructions, educational support materials, and strategic communications to implement DVPRS across DoD. As of April 1, 2019, the DVPRS and Supplemental Questions have been incorporated into enterprise-wide electronic clinical workflow forms. DoD continues to integrate DVPRS into the current EHR and MHS GENESIS®.

External to DoD, a growing number of organizations and medical facilities continue to integrate DVPRS into their respective areas of clinical practice and research. DVPRS integration into West Virginia University (WVU) Opioid Safety and Pain Management initiatives continued in FY 2019 and included WVU Rockefeller Neuroscience Institute using DVPRS in their clinical care and research programs.

Organizations, such as the American Society of Acupuncturists, are promoting DVPRS as the standard pain assessment tool for their national network of licensed acupuncturists (Figure 1).

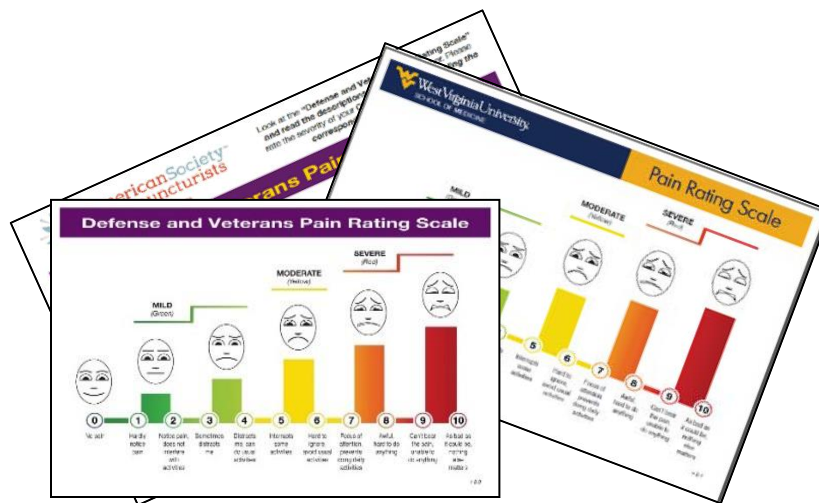


Figure 1. Examples of DVPRS Use Outside of DoD.

Interest in the DVPRS has not been limited to organizations in the United States. Following a briefing on the DVPRS provided during a visit to the Uniformed Services University, medical officers from the Italian Ministry of Defense requested permission to develop an Italian translation for the DVPRS. Additionally, researchers from University Hospital in Belgium contacted DoD's Defense and Veterans Center for Integrative Pain Management (DVCIPM) to validate their Dutch translation of the DVPRS as part of clinical investigations in clinical care and research.

<u>Pain Assessment Screening Tool and Outcomes Registry</u>

PASTOR is DoD's pain management outcomes and clinical decision making tool. It utilizes evidence-based patient reported outcomes to assess effectiveness of clinical and programmatic pain management interventions at both the individual and population health levels.

A multiyear proof of concept pilot of PASTOR began in 2014 at Naval Medical Center San Diego (NMCSD) and Madigan Army Medical Center (MAMC). An updated version of PASTOR was later developed to be the enterprise-wide clinical decision-making tool, designed to be integrated into DoD clinical workflows and EHRs. In accordance with the plan approved by MHS Governance, recent activities focus on the tasks required for phased deployment of the enterprise version of PASTOR to designated MTFs:

FY 2019 PASTOR Deployment Locations:

1) Brooke Army Medical Center
2) Eisenhower Army Medical Center
3) Joint Base (JB) Elmendorf-Richardson Medical Group
4) Landstuhl Regional Medical Center (LRMC)

5) MAMC (PASTOR/Assessment Center-Lite site)
6) NMCSD (Balboa) (PASTOR/Assessment Center-Lite site)
7) Naval Hospital Pensacola (NHP) (New)
8) Naval Medical Center Portsmouth (NMCP)
9) Tripler Army Medical Center (TAMC)
10) Walter Reed National Military Medical Center (WRNMMC) (PASTOR/Assessment Center-Lite site)
11) Womack Army Medical Center (WAMC)

Navy Medicine (NAVMED) employed PASTOR to measure effectiveness of its Functional Restoration Pain Program (FRPP) at NMCSD. In addition, PASTOR is used to support clinician management of chronic pain at the NMCSD Pain Medicine Center. The Army is currently utilizing PASTOR as the primary tool to track outcomes and effectiveness of the Comprehensive Pain Management Program (CPMP) at MAMC Interdisciplinary Pain Management Center (IPMC).

Pain Management Services

Within MHS, early identification and intervention occurs in Patient-Centered Medical Homes (PCMHs) with a team of full-time integrated behavioral health consultants. These consultants support patients and their Primary Care Managers with many aspects of pain management and opioid medication use, particularly by providing patients with non-pharmacological approaches to pain control and symptom management to limit opioid prescriptions. Although DHA has limited ability to cover certain non-conventional treatments in Complementary and Integrative Medicine (CIM) outside MTFs, the organization acknowledges the role of CIM in pain management. The conventional CIM treatments include behavioral health treatments, stress relaxation, physical and occupational therapies, and pharmacological management by clinical pharmacists. Non-conventional CIM treatments such as acupuncture, chiropractic care, and therapeutic massage are limited to ADSMs in the direct care system since these treatments do not meet the criteria for authorized TRICARE® covered medical benefits. Acupuncture treatment is available to non-Active Duty beneficiaries on a space available basis only at some MTFs.

Below is an overview of MHS programs, guidelines, and tools that support effective pain management in the MHS.

<u>Comprehensive Pain Management Programs</u>

In conjunction with MHS expansion of the PCMH model, the Army, Air Force, Navy, and NCR pain programs, along with DVCIPM, continue to focus significant effort on providing necessary clinical, education, and training support for pain management in primary care. PCMH and specialty care designated representatives participate in the PMCSS to facilitate synchronization across pain specialty and primary care lines of effort. DVCIPM also continues coordinating two projects that were initially funded from the VA/DoD Joint Incentive Fund: Acupuncture Training Across Clinical Settings and JPEP.

Department of the Army

The Army CPMP coordinates with the Primary Care Service Line through the Army Medical Home (AMH) monthly meetings. Army CPMP continues its support to the Stepped Care Model for Pain training and implementation across the MHS and continues to be at the center of the strategic concept, which begins with self-care, moving through the AMH, the Medical Neighborhood, and at the tertiary level, the IPMCs. The link between tertiary care and primary care is the Primary Care Pain Champion (PCPC); the Army CPMP continues to assist primary care in identifying and training PCPCs. The primary duties of the PCPC in the AMH are to coordinate pain care, participate in Project ECHO®, and provide educational support to providers.

Strategically located IPMCs facilitate improved pain care throughout the continuum of care and provide tertiary pain care to Army's beneficiaries at the MTFs. The IPMCs serve as SMEs to primary care providers in the AMH. Additionally, these centers provide CIM therapies, such as behavioral health treatments, stress relaxation, physical and occupational therapies, yoga, medical massage, and pharmacological management by clinical pharmacists. The other CIM therapies provided by IPMCs in some MTFs are limited to ADSMs, such as chiropractic care. Other non-Active Duty beneficiaries can only participate in some CIM treatment modalities, such as acupuncture, on a space available basis. During the first quarter of FY 2019, the IPMCs provided over 71,000 pain visits.

The Army CPMP continues to address requirements in response to the Army Family Advocacy Program (AFAP) Issue #641, "Over Medication Prevention and Alternative Treatment for MHS Beneficiaries." Several opioid safety tools have been developed across the MHS to include acute prescribing guidelines; Prescription Drug Monitoring Program (PDMP); CarePoint Opioid Registry and Patient Look-Up Tool. Pharmacists are dispensing naloxone, an opioid reversal agent, to beneficiaries (or their family members) receiving opioid prescriptions aligning with AFAP Issue #697, "Active Duty Soldier TRICARE Alternative Medical Services."

The Army CPMP continues supporting the Opioid Profiling Standardization guidance established by Army EXORD 224-17. The EXORD directs medical providers to use e-Profiles to communicate a soldier's capabilities and limitations to Commanders when prescribing an opioid medication. The EXORD not only improves communication, but also assists Commanders in assessing at-risk Soldiers, enhancing overall focus on improved medical care and readiness.

Department of the Air Force

Within the Air Force, the CPMP is comprised of six Multidisciplinary Pain Management Clinics (MPMC), of which four are IPMCs — Travis AFB, Eglin AFB, Nellis AFB, and JB Elmendorf-Richardson. IPMCs offer a comprehensive range of pain management services including acupuncture, osteopathic manipulation, bio-physics devices, behavioral therapy and interventional and surgical therapies. Acupuncture is provided to ADSMs in MTFs, and non-active duty beneficiaries as available in MTFs. The AF CPMPs provide a comprehensive range of pain management and integrative healthcare protocols to reduce the use of opioids. Nellis Family Medicine residency embeds a 300-hour acupuncture "Think Acupuncture First" training

and has graduated three classes since 2016. Nellis also has research funding to study the pain management benefits of an FDA-approved transcutaneous electrical nerve stimulation device.

JB Andrews Acupuncture and Integrative Medicine Center (AIMC) is a Center for Excellence in training, research and clinical care. The AIMC continues to teach Battlefield Acupuncture (BFA), a rapid pain relief technique with over 6,000 healthcare providers having received instruction and about 300 new trainees monthly. BFA training also is being delivered in Kuwait. As a result, there has been a decrease in prescriptions for opioids/nonsteroidal anti-inflammatory drugs (NSAIDS) for the entire facility in the past two rotations, because physicians who are trained in medical acupuncture prescribe opioids at half the rate as physicians who are not so trained. The Rapid Acupuncture for Medical Physicians courses for Air Force physicians continue to be expanded and widely delivered. These courses are provided in person and are also available on-line as part of an interactive live webinar which reaches out to health care providers in the Armed Forces and Veterans Affairs. The Travis AFB Pain Program is a mandatory rotation for all physician interns and Family Medicine residents in training and Travis offers the Air Force's first family medicine elective rotation in pain medicine. JB Elmendorf-Richardson has a joint-venture agreement with the Department of VA to expand integrative healthcare services.

All of the MPMCs offer beneficiaries a wide array of multimodal pain care with an emphasis on non-opioid/non-pharmacologic modalities and minimally invasive therapies including dry needle therapy, acupuncture, BFA, microcurrent electrical therapy, and trigger point injections. Advanced diagnostics, intravenous ketamine infusion treatments for complex regional pain, central pain, depression, Posttraumatic Stress Disorder (PTSD) and opioid related disorders are also provided. Interventional therapies include invasive epidural steroid injections, radiofrequency ablation, platelet rich plasma injections, and sympathetic ganglion blocks.

Department of the Navy

In FY 2019, the Navy Comprehensive Pain Management Program (NCPMP) funded an additional five pain care professional services staff positions at Navy MTFs and leveraged feedback received from Navy MTFs to reclassify more than 10 vacant positions to more specifically meet the needs of pain patients. Inclusion of additional positions, along with the position conversions, brings the total number of pain program funded support positions to 94, dispersed across 15 MTFs. As of July 2019, NCPMP-funded MTF positions including acupuncturists, addiction specialists, clinical pharmacists, physical therapists, clinical psychologists, and other modalities. The multispecialty approach increases NAVMED's capacity to offer multidisciplinary treatment modalities as an alternative to solely pharmacologic approaches, including opioid therapy, for ADSMs (and non-Active Duty beneficiaries on a space available basis).

NCPMP continues to support improved management of pain care pharmacotherapy through inclusion of 23 clinical pharmacists within the program budget. As of July 2019, 20 of 23 funded positions have been filled and are providing support to pharmacotherapy management at 15 MTFs. These pharmacists are also participating in a monthly training and mentorship teleconference forum, known as the Polypharmacy Pain Initiative Community of Practice, to

increase sharing of best practices and support standardized integration within the primary care setting.

NCPMP expanded its practice of providing a comprehensive LOT patient identification tool to all 27 Navy MTFs and the United States Marine Corps (USMC) Health Service Support Office (HSSO). The tool, updated on a quarterly basis, aids local Long-term Opioid Therapy Safety (LOTS) Chairs, Pain Champions, pain committees, and NCPMP's 20 hired clinical pharmacists in identifying at-risk patients to facilitate interventions, including medication review and reconciliation. This tool also supports the USMC HSSO to accomplish a review of USMC LOT patients in order to address readiness and deployability concerns associated with Marines and Sailors on LOT. Starting in the third quarter of FY 2018, NCPMP scaled up its quarterly LOT patient chart review initiative from the nine voluntary Navy MTFs to mandate participation by all 27 MTFs. These chart reviews focused on measuring Command compliance with the CPGs that were established in BUMED Instruction 6320.101, "LOT Safety Program." LOTS Committee Chairs from each Command participated in quarterly Town Halls and Steering Committees to establish and drive standardized and consistent interpretations of the CPGs and share strategies for compliance.

National Capital Region

The NCR has been successful in integrating pain services with telehealth modalities in primary care with personnel in Warrior Clinics at WRNMMC, Fort Belvoir Community Hospital, Kimbrough Ambulatory Care Center, Naval Health Clinic Quantico, DiLorenzo TRICARE® Health Clinic, Naval Health Clinic Annapolis, Naval Health Clinic Patuxent River, NHP, and Malcolm Grow Medical Center. By embedding pain assets, TRICARE® beneficiaries have the advantage of receiving specialty care in PCMH, and primary care teams can co-manage and learn from pain specialists. The innovative programs of the NCR Pain Care Initiative continue to serve as a model for pain care to improve quality, efficiency, and access to pain care services with telehealth capabilities.

Furthermore, the NCR pain telehealth program continued to expand services, sites, and number of encounters in MHS with a team including one pain physician, two pain physician assistants, two pain psychologists, one tele-pain registered nurse, one licensed social worker, one integrative medicine physician, as well as an integrative medicine nurse and support staff to the pain telehealth team. The NCR continues to pilot an in-home tele-pain service to assist with transitioning Service Members. In addition, the team serves as the MHS pain expert to deployed providers via the Army e-consult program.

Defense Health Agency

In 2018 DoD conducted a pilot study in the PCMH setting to obtain feedback on likely behaviors related to education and use of a locking cap vial. Results from the pilot study supported use of patient education for opioid safety but did not demonstrate effectiveness for use of a locking cap vial to reduce opioid diversion. Based on the results of the pilot, patient education on opioid safety is being provided to every beneficiary receiving an opioid prescription.

Clinical Care Pathway Development

In FY 2017, DHA conducted a Key Process Analysis to determine the largest areas of opportunity for improvement, based on total cost, volume, variability, and impact to readiness. Based on this analysis, low back pain (LBP) was selected as one area of focus for a pilot in care pathway development and implementation. The intent of care pathways is to enable readiness through decreasing variation, improving outcomes, and positively impacting care in the MHS. The goals of the LBP care pathway are to:

- Promote a standardized and outcome measurable approach to care delivery with a focus on patient outcomes, in line with high reliability principles;
- Return patients to military readiness sooner;
- Facilitate early access to physical therapy, which has been shown to improve patient outcomes and reduce both cost and additional health care consumption;
- Reduce unnecessary diagnostic imaging;
- Reduce the use of opioid medications and the risk of opioid addiction; and
- Reduce pain-related disability.
- The LBP care pathway was developed and is currently being piloted at WRNMMC.

Stepped Care Model of Pain Management

The MHS Pain Strategy incorporates the SCMPM developed by VA. The SCMPM is a strategy to provide a continuum of effective treatment to patients with acute and chronic pain. In January 2016, the NCPMP successfully recruited the first cohort of specialty and PCPCs at seven sites receiving program-funded specialty pain care service providers. The Pain Champions have since been instrumental in helping the program identify opportunities to improve pain care at the local and enterprise levels. Additionally, the Services have utilized collaboration forums, such as the MHS PMCSS, to discuss and socialize the SCMPM with liaisons from the primary care community, soliciting feedback to update and improve clarity of the referral guidelines.

The Navy's Pain Champions facilitated onboarding of new professional resources in pain clinics and in the primary care setting, led the stand-up of local delivery of pain trainings in primary care clinics using the JPEP curriculum, and collaborated with the NCPMP to outline a more detailed guide to SCMPM implementation. Per requirements of the DHA-PI on Pain Management and Opioid Safety in the MHS and in preparation for increased MTF participation in the Navy LOTS program, in November 2018, a second cohort of specialty and PCPCs was appointed and on-boarded at all 27 MTFs, bringing the total number to 40. Pain Champions continue to be the NCPMP's primary liaisons to the frontline healthcare providers in regard to pain management efforts and the key component of NCPMP's ability to expand the services and initiatives of the program more broadly – ensuring access to quality pain care for our patients and education for our Navy providers.

Clinical Practice Guidelines

As indicated in the National Pain Strategy, the requirement for updated and additional evidence-

based guidelines for pain management is a national priority. MHS is committed to the practice of evidence-based medicine and supports ongoing development and updates to CPGs through the VA/DoD HEC Evidence-Based Practice Work Group (EBPWG). The VA/DoD CPGs and supporting tool kits were developed by the EBPWG to provide clinicians with a standard to guide their clinical decisions, as well as a tool for use in the peer review process. The Services use CPGs to update their Service-level policies.

An updated VA/DoD CPG for the Management of Opioid Therapy for Chronic Pain (Opioid CPG) was published in February 2017. The related CPG tool kits have integrated recent advances in medical evidence regarding quality pain care and effective use of prescription medications, as well as compliance with the 2016 CDC Guideline for Prescribing Opioids for Chronic Pain. The HEC PMWG and EBPWG discussed the need for additional pain-related CPG(s), but determined it was advisable to focus their efforts on supporting implementation of the updated Opioid CPG and its tool kits. Both HEC WGs will evaluate implementation of the Opioid CPG and the need for additional pain-related CPGs in FY 2019.

The MHS PMCSS and EBPWG also continue to collaborate to determine the need for other CPG updates or new CPGs. In addition, the LOTS WG, which includes representatives from family medicine, pharmacy, anesthesiology, and other relevant specialties, stood up a CPG compliance monitoring initiative, refined a Chronic Opioid Therapy Safety (COTS) form for the Tri-Service Work Flow (TSWF), and developed a variety of education materials, including modules for primary care providers in the JPEP curriculum on safe prescription of opioids and management of patients on LOT. The TSWF is a multi-disciplinary approach to the integration of information technology systems into the clinical environment, leveraging template management, and evaluating and re-engineering clinical workflows.

The Navy LOTS WG was also tasked with reviewing the CPG on Management of Opioid Therapy for Chronic Pain to identify and assess best practices for the safe prescription and use of opioid therapy for pain management. The outcome of this assessment was the adoption of four key recommendations that focused on screening for past psychiatric history and substance use history for patients on LOT; screening for concurrent use of benzodiazepines; recommending use and annual renewal of opioid care agreements; and recommending administration of annual urine drug screening for every patient on LOT. For increased review of ADSM, Navy is now conducting quarterly chart reviews of 25 percent of ADSM on LOT and 100 percent chart review of ADSM on high dose (90MME daily dose).

Following the update of the CPG on Management of Opioid Therapy for Chronic Pain in 2017, the NCPMP reviewed the new guidelines in conjunction with the Navy LOTS WG and confirmed that the 2018 BUMED LOTS instruction remains in alignment with the CPG. The BUMED LOTS instruction includes a version of VA's Consent for LOT adapted for use by NAVMED as an informed consent opioid care agreement. The document standardizes administration of informed consent and care agreements into a single form for use across the NAVMED enterprise. Likewise, requirements of the instruction apply to all prescribers in the NAVMED enterprise in order to standardize key patient safety tenets and best practices across Navy. Command adherence to these patient safety requirements is being monitored and reported via the NCPMP quarterly LOT patient chart review initiative. The NCPMP continues

collaboration with the BUMED Chief Medical Officer and appropriate SMEs to establish informed, enterprise-wide compliance benchmarks and guidance to address patient safety issues illuminated by the LOT patient chart reviews.

The NCPMP has been engaging stakeholders for input on revisions and additions to the BUMED LOTS instruction. Planned updates include, but are not limited to:

- Expanding mandated LOTS patient chart reviews to include 100 percent of high dose (≥ 90 morphine equivalent daily dose (MEDD)) ADSM and 25 percent of non-high dose ADSM in addition to 5 percent of high dose non-ADSM and 5 percent of non-high dose non-ADSM;
- Expanding safety surveillance (assessing regularly for degree of analgesia, opioid-related adverse effects, functional status and activities of daily living, and aberrant behavior at every opioid-related visit) to include Telcons in addition to face-to-face visits;
- Addition to allow exclusion of hospice and palliative care patients from chart review requirements; and
- Addition of guidance around Naloxone prescribing for LOT patients.

An updated version of the BUMED Instruction will be formally released once the requested revisions and additions are reviewed and included.

Alternate Input Method Forms

TSWF developers have developed an Alternate Input Method (AIM) documentation tool, referred to as the COTS AIM form, which is based on the VA/DoD CPG for Management of Opioid Therapy for Chronic Pain. The COTS AIM form provides clinicians a standardized format to document items critical to understanding and managing these patients appropriately. In addition, links to screeners, reference materials, and patient handouts are provided on the COTS AIM form.

By utilizing this standard form to treat patients on LOT, the Services are able to identify this population. The COTS AIM form facilitates peer review and other inquiries by local MTFs and oversight committees. This form also provides embedded and well-delineated treatment algorithms for specialty care referrals for initiation, follow up, and discontinuation of chronic opioid therapy.

Military Health System Opioid Registry

The CarePoint MHS Opioid Registry is a collaborative, multi-disciplinary intervention developed by DHA Enterprise Intelligence and Data Solutions, DHA Pharmacy Operations Division, and NCR, to support providers, staff, and decision-makers in improving safety and quality of care of patients on prescribed opioids. It was successfully pilot tested in 2016 and launched to all MTFs with access to CarePoint MHS Population Health Portal in 2017. The opioid registry data spans more than 200 variables, including demographics, medications, MEDD, results of urine drug testing, and opioid risk factors. High-risk opioids and other medications such as antidepressants, benzodiazepines, and sleep medications concurrently

prescribed with opioids are flagged to alert staff of potential fatal overdoses. Unlike state PDMPs — where insight is limited to medication data only — a more comprehensive view can be provided by offering information related to patients' mental health co-morbidities, current and past urine drug testing, healthcare utilization practices, and other patient-associated behaviors enabling providers to prioritize and stratify populations according to risk category.

The MHS opioid registry brings multiple communities together in a common information platform to: monitor opioid activity across the entire continuum from as early as a patient's first dispensing event; detect potential harm or misuse of opioid medications in non-cancer patients via flagging and validated risk scores; evaluate effectiveness of opioid safety programs using opioid measures and reports; and share relevant data such as medication history and opioid risk profiles for those patients transitioning from DoD to VA. Within the past 2 years, collaboration with SMEs has resulted in the development of additional decision support tools and enhancements within the MHS Opioid Registry:

1) Risk Scores – Automatic calculation and incorporation of the Risk Index for Overdose or Serious Opioid-Induced Respiratory Depression (RIOSORD) which integrates healthcare utilization, opioid prescriptions, and comorbidities to estimate a patient's risk of overdosing in the following 6 months.
2) Patient Lookup Tool – enhances clinical pharmacy professionals', physicians', and other authorized providers' ability to proactively monitor and manage patients at point of care. Upon scanning of a patient's military ID card, a subset of the opioid registry (e.g., MEDD over time, RIOSORD score, probability of opioid-induced respiratory depression, and whether the patient should be prescribed naloxone based on known comorbidities and factors) is displayed. Use of CarePoint and the Patient Lookup Tool was referenced as part of DHA-PI, "Naloxone Prescribing and Dispensing by Pharmacists in Medical Treatment Facilities (MTFs)" on June 19, 2018.
3) The Opioid Risk and Recommended Clinical Actions Report was later added to the registry, enabling users to determine whether patients are CPG-compliant on a plethora of opioid-related factors.
4) DoD/VA collaboration is ongoing in expanding use of the MHS Opioid Registry to impact transition of care activities for pain, social work, and pharmacy communities within both agencies.

Effectiveness of Pain Management Services

The MHS PMCSS, consisting of members from DHA, Service (Army, Navy, Air Force) Pain Program leads, and DVCIPM continues to collaborate with the Services and various stakeholders to synchronize and standardize metric development and analysis. This group developed the DHA-PI on Pain Management & Opioid Safety in the MHS, which describes the MHS Stepped Care Model being implemented in all MTFs. The MHS Stepped Care Model is a comprehensive model of pain management that provides patients with evidence-based pain management guided by CPGs; effectively treats acute and chronic pain; promotes non-pharmacologic treatment; prevents acute pain from becoming chronic; and minimizes use of opioids with appropriate prescribing only when indicated.

The DHA-PI provides specific guidelines on opioid prescribing for MTF providers, consistent with VA/DoD CPGs, including: acquiring informed consent for patients who require opioids; prescribing less than a 5-day supply of short-acting opioids for acute pain episodes and minor procedures in opioid-naïve patients; prescribing less than a 10-day supply of short-acting opioids for major procedures in opioid-naïve patients; providing medication assisted therapy for those with opioid use disorders (OUDs); and providing naloxone (opioid reversal) for those at higher risk for overdose. It also provides guidance for TRICARE® Health Plan to partner with Managed Care Support Contractors to minimize inappropriate opioid prescribing and conduct value-based pilots of non-pharmacologic pain treatments.

The Pain Management & Opioid Safety in the MHS DHA-PI also aims to centralize effectiveness measures through use of patient reported subjective data from PASTOR. Currently PASTOR is hosted in the Wounded, Ill, and Injured Registry from the Army Analytics Group. Requirements, funding, infrastructure, and sustainment needs are being evaluated to determine the most appropriate way forward. These factors affect development and deployment and impact the availability of patent reported subjective measures.

In accordance with the NDAA for FY 2019, the MHS began populating the MHS PDMP database in December 2018 and began making that information available to other states on January 11, 2019. Through sharing agreements, civilian providers in participating states can view MTF-controlled substance prescription information. Likewise, once an MTF provider registers in the system, civilian pharmacy controlled substance prescription information can be viewed. Utilizing the National Association of Boards of Pharmacy PMP Interconnect Data Sharing System, the MHS operates as any state included in the system and allows authorized prescribers and pharmacists to access information about their patients' controlled substance prescriptions across state lines. Both civilian and military providers can now view a complete controlled substance dispensing record for TRICARE® beneficiaries.

The Army uses the Controlled Substance Provider Profile through the DHA CarePoint Portal to monitor prescriptions for controlled substances written by providers over a 3-month period. The Chronic Pain/High Utilizer/Poly-Pharmacy report shows summary and detailed information at the Regional Medical Command and MTF levels for beneficiaries who meet risk criteria. Identifying at risk individuals allows Army to direct appropriate clinical care. The data are also used to evaluate the effectiveness of the entire spectrum of the CPMP from AMH to IPMC.

The use of long-term opioids among Army ADSMs is at 3.9 percent for FY 2018 – a continued decline from the peak at 12.3 percent in FY 2007. Opioid use among Army ADSMs (defined as receiving at least one opioid prescription) decreased from 20.8 percent to 17 percent in FY 2018 and data in FY 2019 continues this downward trend. Among Army ADSMs, OUD rates continue to be six times less than the adult population (0.90 percent) at 0.15 percent.

In an effort to ameliorate medication abuse, Air Force Pharmacy screens all controlled substance prescriptions, requests for unusually large quantities dispensed, and prescriptions from multiple providers to an individual patient using the CarePoint patient scanning tool developed by DHA. The entire controlled substance inventory is tracked with 100 percent accountability, both in-garrison and at deployed locations. This exceeds the civilian standard, which currently requires

100 percent accountability for only Schedule II drugs. The Air Force continues to coordinate with state PDMPs. Four MTF pharmacies participated in a DHA gap analysis, which revealed that lack of access to state PDMPs posed minimal gaps in opioid monitoring strategies.

The DHA CarePoint Opioid Registry, which generates a MEDD, recommends specific interventions like naloxone and urine drug screens and flags risk factors like concurrent benzodiazepine use, furthering the Air Force's efforts to prescribe opioids safely when needed. It is currently operational and will be a required part of the pain pathway moving forward with SCMPM implementation.

Thirty-four diverse clinic types across the Air Force Medical Service (AFMS) are currently providing acupuncture services, with 81 percent of Air Force MTFs (61 of 75 MTFs) providing acupuncture services within FY 2017 and 94 percent of Air Force MTFs offering BFA or medical acupuncture services. A study of patients receiving acupuncture at the Nellis Family Medicine Clinic revealed a 62 percent reduction in opioid use, in addition to a 38 percent reduction in use of anti-anxiety medications, and an astounding 100 percent reduction in use of muscle relaxers.

Within the Department of the Navy, the NCPMP continues its work with the Navy Marine Corps Public Health Center to use five identification criteria, referred to as the Chronic Pain Five (CP5), for identifying and monitoring changes in chronic pain patient populations across the NAVMED enterprise. Figure 2 provides an overview of the five criteria that make up the CP5 methodology.

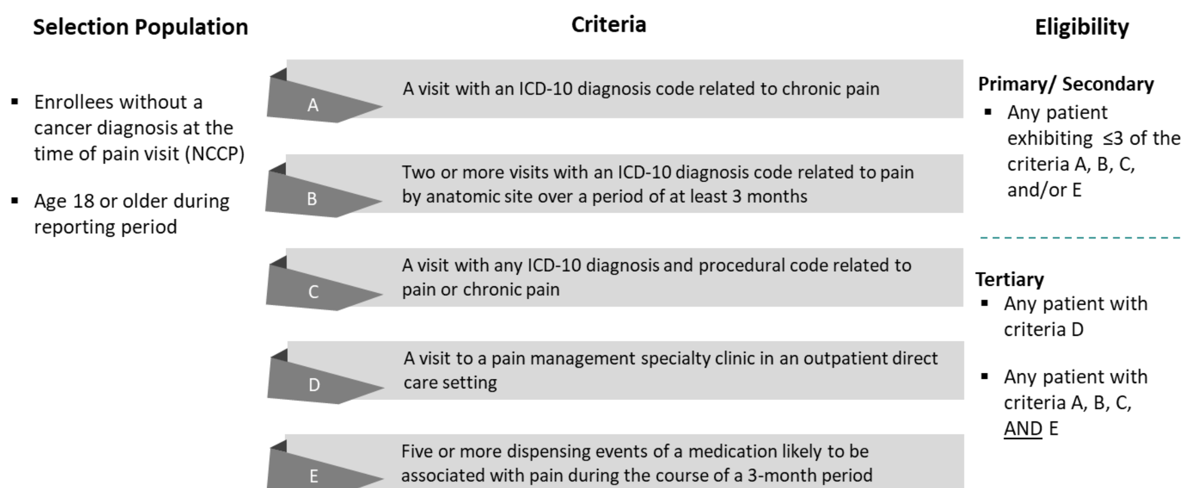
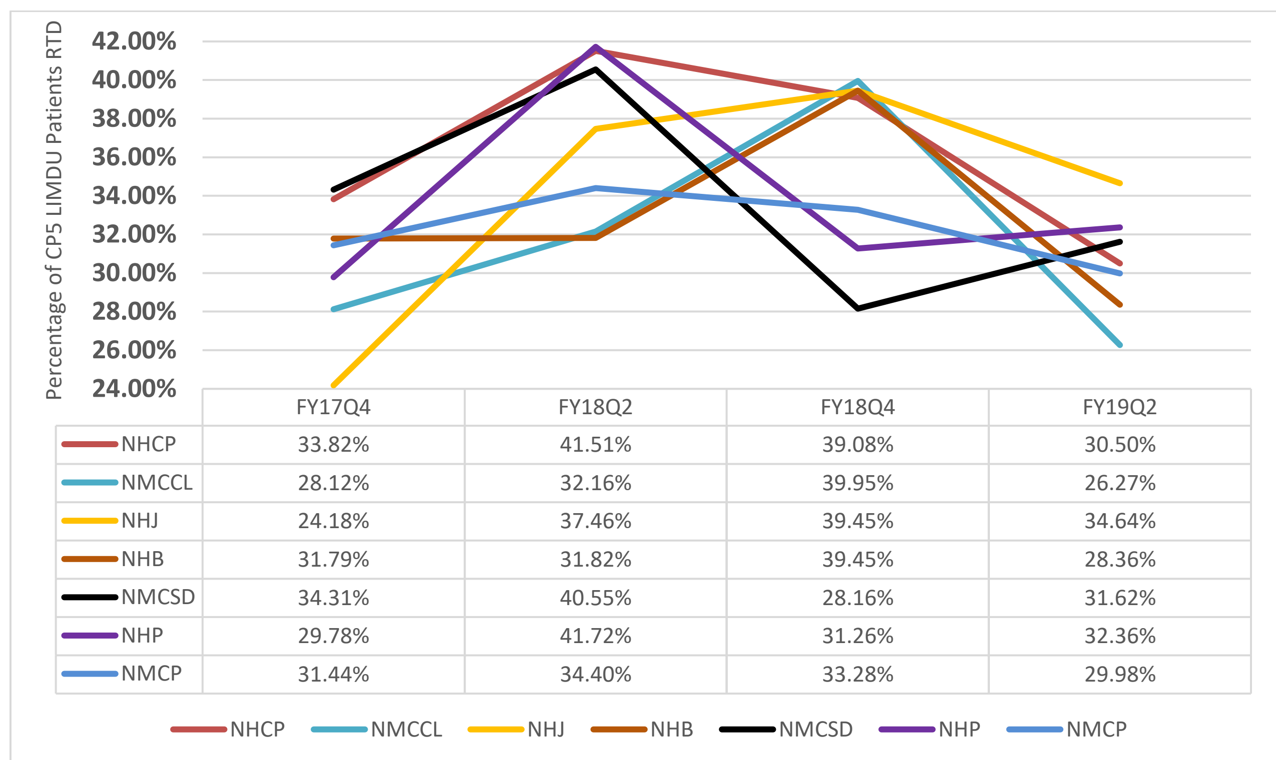


Figure 2. The Chronic Pain Five Criteria for Chronic Pain Patient Identification.

CP5 was implemented in 2015 and the first analysis found 104,952 patients suffering from primary, secondary, or tertiary pain conditions. The most recent time period reviewed, April 2018 to May 2019, found 123,199 total CP5 patients. After identifying the pain population, nine metrics to assess pain care processes within the NAVMED enterprise were purposed and developed. The metrics have been visualized in a monthly performance management tool designed to support evidence-based decision-making by BUMED and Command-level leadership. These nine metrics include: Inpatient Visits, Inpatient Dollars Spent, Emergency

Room Visits, Emergency Room Dollars Spent, Primary Care Visits, Primary Care Dollars Spent, Specialty Care Visits, Specialty Care Dollars Spent, and Total Dollars Spent.

Additionally, the NCPMP conducts a quarterly analysis on the CP5 patient population to assess the program's effectiveness with regard to restoration of function, a metric that represents the overarching goal of the NCPMP and bolsters the program's tie back to the Navy readiness mission. This metric identifies Navy SMs on limited duty (LIMDU) status due to chronic pain and tracks the proportion of that patient population that returns to full Active Duty status, indicating effective pain management that positively impacts Navy readiness. Using the most recent LIMDU and CP5 lists available, Figure 3 displays the Navy pain management monitoring of chronic pain patients on LIMDU as these patients show a statistically significant lower success rate with returning to duty compared to non CP5 patients. The analysis spans the fourth quarter of FY 2017 to the second quarter of FY 2019.



	FY17Q4	FY18Q2	FY18Q4	FY19Q2
NHCP	33.82%	41.51%	39.08%	30.50%
NMCCL	28.12%	32.16%	39.95%	26.27%
NHJ	24.18%	37.46%	39.45%	34.64%
NHB	31.79%	31.82%	39.45%	28.36%
NMCSD	34.31%	40.55%	28.16%	31.62%
NHP	29.78%	41.72%	31.26%	32.36%
NMCP	31.44%	34.40%	33.28%	29.98%

Figure 3. Return to Duty Rates for Navy CP5 Active Duty Patients on LIMDU at Seven Navy MTFs between FY17Q4 and FY19Q2.

Patients' Perception of Adequacy of Pain Management Services

Congress has requested that an assessment of the adequacy of DoD pain management services be included in this annual report. While there is no standardized tool for surveying patient satisfaction with pain management services in DoD outpatient settings, the Services measure patient satisfaction with pain management in primary care and several specialty care clinics.

DoD continues to track patient satisfaction utilizing the Joint Outpatient Experience Survey

(JOES) program. JOES is a single survey for all MTFs across all Services that combines and standardizes long-standing methods used by Army, Navy, Air Force, and NCR to learn about beneficiary healthcare. While no national benchmarks exist for this survey, the findings are encouraging. As of May 2019, results include:

- Access to Pain Care:
  - 97.9 percent out of 517,587 respondents stated that their care was received in-person.
  - 94.9 percent out of 467,679 respondents stated that their needs were addressed within 30 minutes of their appointment.
- Facility:
  - 91.3 percent out of 521,184 respondents stated they were satisfied with their healthcare facility.
  - 87.1 percent out of 519,663 respondents stated they were likely to recommend the facility.
- Patient:
  - 87.9 percent out of 513,029 respondents felt that they make healthy choices.
  - 88.1 percent out of 512,358 respondents state that they feel they have influence over their own health.
- Provider:
  - 91.3 percent out of 511,941 respondents stated they were satisfied with their provider.
  - 94.2 percent out of 513,738 respondents stated their provider was courteous and respectful.

DoD is also assessing beneficiary satisfaction with pain management as part of its annual Hospital Consumer Assessment of Healthcare Provider and Systems (HCAHPS) survey. Beginning in January 2018, the pain management satisfaction questions were updated with two new questions that focus on communication about pain. These new questions, listed below, create a composite "communication about pain" measure and are intended to evaluate the patient's experience of his or her pain management. Results from the second quarter of FY 2019 are in Table 1:

- "During this hospital stay, how often did hospital staff talk with you about how much pain you had?"
- "During this hospital stay, how often did hospital staff talk with you about how to treat your pain?"

Measure	Score*	HCAHPS Benchmark**	Number of Respondents
Communication about Pain Composite	78.6	N/A	5,643
Discussed Amount of Pain	79.2	N/A	5,648
Talk About Pain Treatment	78.0	N/A	5,637

Table 1. Quarter 2, FY 2019 Responses to Communication about Pain Questions

*Score based on number of respondents who responded to the question with an answer of "always."

** No current benchmarks exist as CMS removed the pain management dimension on the HCAHPS survey in CY2017.

Figure 4 depicts inpatient satisfaction from the second quarter of FY 2018 to the second quarter of FY 2019. Both *Communication About Pain* and *Discussed Amount of Pain* show statistically significant improvement over the 5 quarter period represented in the chart.

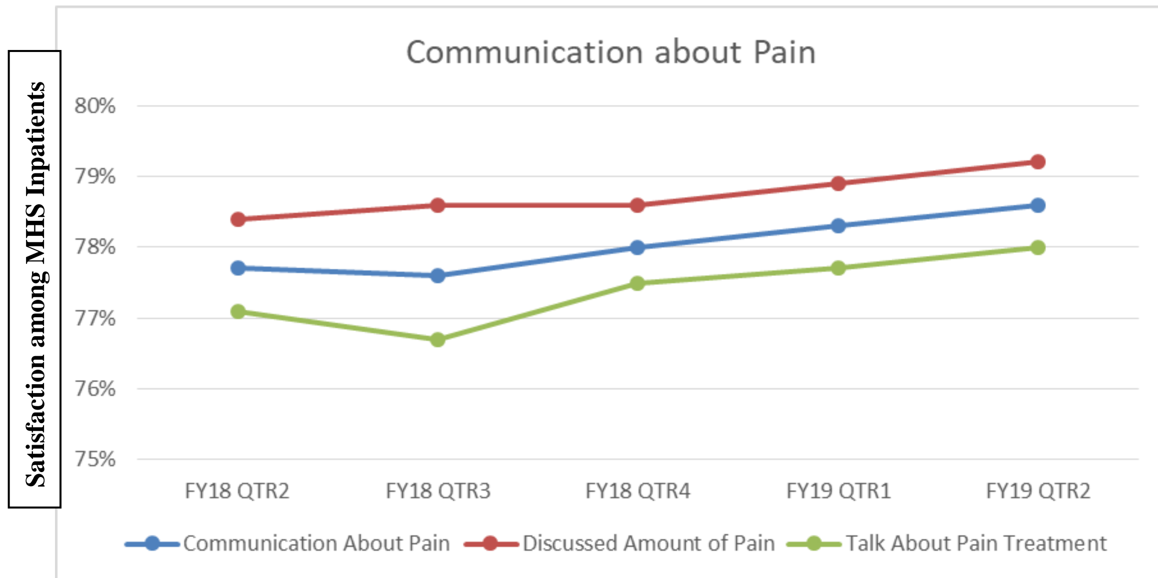


Figure 4. Quarter 2, FY 2018 to Quarter 2 FY 2019 Responses to Communication about Pain Questions

Pain Management Research

The Pain Management Portfolio is comprised of DoD research efforts for improved pain management from point of injury to chronic pain, spanning basic research through clinical development. DoD continued to make advances in pain research across the enterprise in FY 2019. The DoD Pain Management Portfolio has 65 ongoing projects in 9 major focus areas with a total funding of $144M (Figure 5). DoD personnel have published multiple articles on acute and chronic pain management in peer reviewed journals and, despite constraints on DoD attendance at conferences, numerous MHS clinicians and researchers have presented pain management projects at multiple military, national, and international medical conferences. In addition, DVCIPM continues to represent DoD on the NIH-Interagency Pain Research Coordinating Committee.

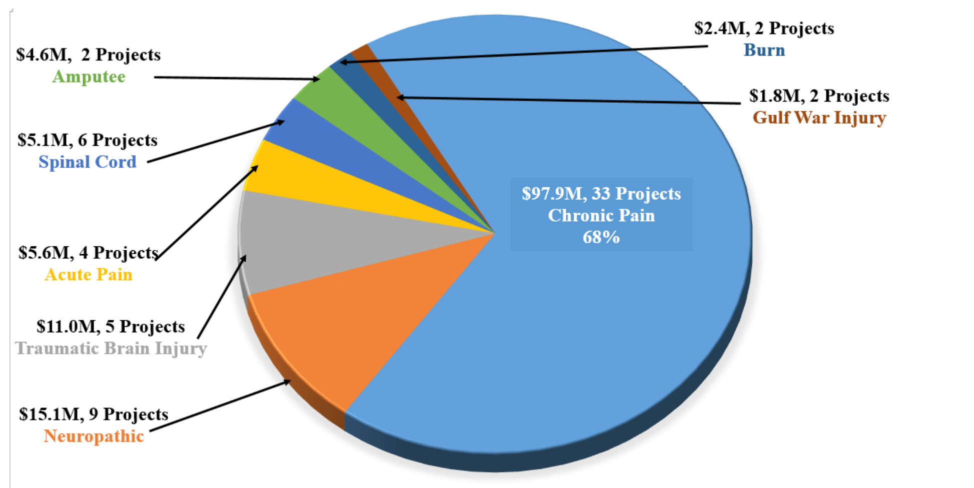


Figure 5. DoD Pain Management Portfolio.

DoD entities engaged in pain management research include WRNMMC, NCR, NMCSD, NMCP, DVCIPM, U.S. Army Medical Research and Material Command, Clinical and Rehabilitative Medicine Research Program (CRMRP), Institute for Surgical Research, USUHS, and MTFs. The CRMRP portfolio in particular spans basic research through clinical development projects that address pain management from the point of injury to chronic pain management.

CRMRP provides products and information solutions for the diagnosis and alleviation of battlefield, acute, and chronic pain, as well as related sequelae. MAMC is engaged in: 1) two CRMRP-funded clinical trials of conventional and complementary/integrative pain therapies; 2) a NIH funded controlled trial of ECHO®; and 3) a secondary analysis of PASTOR data. In addition, NCR is a member of the NIH Pain Management Collaboratory Coordinating Center – Military Treatment Facility Engagement Committee.

As the designated DoD Center of Excellence for Pain Management, DVCIPM continues to focus on leveraging the best available evidence, clinical expertise, and collaboration among the Services and national SMEs to develop consensus recommendations in support of DoD pain management practice, education, and research. DVCIPM's current research priorities include developing a pain registry biobank, improving the predictive modeling for pain management decision-making, promoting expanded use of complementary integrative medicine treatments for pain, developing novel analgesics and use of interventional pain procedures, and promoting evidence-based provider training that is synchronized with patient pain management education.

DVCIPM is conducting a multi-site study to examine implementation of the DoD/VA JPEP (completion July 2020). The study focuses on identifying education delivery methods, their acceptability, and the impact of training on several clinical outcomes (e.g., safe opioid prescribing patterns). As an adjunct to this research, DVCIPM is supporting a set of quality improvement projects that utilize the patient-focused JPEP videos to enhance understanding of pain, reduce pain and pain impact, and facilitate discussions regarding opioid-therapy informed consent.

In collaboration with DHA Purchased Care Division, DVCIPM is conducting a health services research study that is aimed at assessing selected U.S. counties that have high-density populations of TRICARE® beneficiaries who live in counties with high rates of opioid prescribing and therefore may be at greater risk of increased opioid use. This project will explore relationships between local prescribing rates (county-level), TRICARE® prescribing rates, healthcare delivery type (purchased vs. direct), and beneficiary type (active duty vs. not). These results can be used to directly tailor prevention and intervention strategies in targeted areas.

Several completed retrospective studies have examined the optimization of the perioperative analgesia pathway. Results have demonstrated the value of multimodal approaches in reducing hospital length of stay, Post Anesthesia Care Unit duration, pain and opioid use, as well as improving functional outcomes.

One randomized control trial tested the effects of an individualized 8-week yoga treatment compared to standard of care in patients with chronic lower back pain. Those receiving yoga reported significantly greater decreases in back pain-related disability, which was maintained at six-month follow-up. A higher proportion of yoga group participants reported clinically-meaningful reductions in symptom burden (e.g., fatigue, anxiety, depression, sleep disturbances, pain interference) at 6-month follow-up than those receiving standard of care.

DVCIPM and USUHS have established a Cooperative Research and Development Agreement (CRADA) with WVU. The state of West Virginia is at the epicenter of the national epidemic of opioid overuse, abuse, diversion, and overdose. The collaboration between USUHS/DVCIPM and WVU provides the opportunity to leverage appropriate tools and strategies developed in DoD for use in West Virginia's pain management and opioids safety strategies. This collaboration has already resulted in the following:

- WVU has integrated DVPRS into their health system and is adapting DoD PASTOR as their pain outcomes tool.
- WVU utilized the DoD model for interdisciplinary pain centers to accelerate the opening of their first interdisciplinary pain center.
- WVU is utilizing JPEP education materials to train their medical providers on fundamentals of quality pain management.
- Following an introduction to DoD BFA, WVU is developing a self-sustaining process for training, credentialing, and promoting BFA.

DVCIPM will leverage the CRADA with WVU to continue validating DoD tools and products through ongoing implementation and effectiveness research. Additional CRADAs are pending with University of New Mexico, University of Vermont, Virginia Tech/Carillion Health, and University of Washington.

DoD is investigating safer, more effective alternatives for pain management in theatre. Combat medics' current morphine sulfate auto-injector is the primary treatment option for pain management on the battlefield and in other austere environments. Morphine cannot completely reduce pain, and it poses significant risks to the wounded Service Member, including respiratory

depression, hypotension, nausea, vomiting, and potential psychological and physical dependence with continued use.

CRMRP objectives for FY 2017 through FY 2021 include the following:

- Successful completion of Phase III Clinical Trial for Sufentanil Nanotab in FY 2017;
- Field Sufentanil Nanotab in FY 2018;
- Start Phase III clinical trial for NerveSpace therapy, a novel non-narcotic pain relief therapy to improve functional outcomes of combat-injured warfighters by relieving post-amputation pain;
- Investigate precision medicine and personalized pain management treatment strategies;
- Investigate treatment approaches for chronic pain in complex patients; and
- Validate non-pharmacological approaches to pain management.

Sufentanil Nanotab is a rapid acting product designed to relieve acute pain with minimal side effects, usually associated with the use of common analgesics currently in use. This product is developed primarily for use in the Tactical Field Care and Tactical Evacuation Care phases of Tactical Combat Casualty Care and at required Operational Capability Level 1 installations and activities. DoD successfully completed a Phase III clinical trial using Sufentanil Nanotab with patients following bunionectomy surgery. There was statistically significant ($p=0.003$) difference in pain for 30g sufentanil-treated patients and for placebo-treated patients.

DoD is also conducting a randomized controlled trial of a novel integrative approach to pain management: combining conventional opioid treatment with Mindfulness-Oriented Recovery Enhancement, a training program designed to target the biobehavioral mechanisms of the feedback loop among pain, psychological distress, and opioid misuse.

NCR is working with the General Service Administration's Office of Evaluation and Strategy on a research project that will evaluate the impact of interventions to decrease the prescribing of opioids and benzodiazepines within MTFs. NCR is also collaborating with DHA on research examining MTF overdose events and interventions aimed at preventing these in the future. In FY 2019, NCR is conducting research projects on spinal cord stimulators at WRNMMC: "Opioid Prescription Practices at 6-Month Follow-up" and "Descriptive and Clinical Characteristics of Patients Receiving a Spinal Cord Stimulator at WRNMMC at One Year Follow-up." Additionally, NCR staff worked on a research project on treating chronic pain: "A Novel Multi-disciplinary Approach for the Treatment of Patients with Chronic Pain without Medications or Invasive Procedures." This research incorporated pain neuroscience education, physical therapy, yoga, sleep management, stress management, meditation, cognitive restructuring, and graded exposure. We demonstrated decreased fear avoidance, increased in physical activity and ability to work, and increased comfort in other modalities.

Within Department of the Navy, NMCSD continues to collaborate with the University of California San Diego (UCSD) on research examining the use of opioid alternatives including peripheral nerve stimulation, continuous peripheral nerve blocks, and cryoanalgesia for treatment and/or prevention of perioperative pain and phantom limb pain. Furthermore, NMCSD is conducting a joint study assessing the efficacy of yoga for chronic neck and LBP in the military

population in collaboration with UCSD. NMCSD and NMCP are conducting a joint study on the efficacy of melatonin for anxiolysis in interventional pain procedures.

Current initiatives at the JB Andrews Acupuncture and Integrative Medicine Clinic include a doctrine, organization, training, materiel, leadership, education, personnel, and facilities (DOTmLPF) analysis to develop a concept of operations for a fully integrative medicine program and a research project assessing gaps in research and evaluating the latest integrative medicine technologies.

In 2018 the Air Force endorsed a DOTmLPF change recommendation on Acupuncture and Integrative Medicine for Pain Management. Twenty-seven solution tasks were developed and are currently undergoing an informal coordination process and analysis to develop a rough order of magnitude for a fully integrative medicine program. This also involves analyzing gaps in research and evaluating the latest integrative medicine technologies.

The Army's Comprehensive Pain Management Team is actively exploring opportunities for improvements and advancements in pain treatment modalities through various research projects.

MAMC is actively engaged in four Institutional Review Board-approved collaborative research protocols through a CRADA with the University of Washington (UW) and data sharing agreements with the DHA Solutions Delivery Division (SDD) and the Office of the Surgeon General (OTSG).

- MAMC partnered with UW on the "Pain and Symptom Management in Rural Communities" study, funded by NIH to determine the value of the ECHO® model on patient reported PASTOR outcomes, provider knowledge, and opioid prescribing trends. Providers who actively participated in ECHO® were significantly more likely to discontinue prescribing long-term opioids for their patients when compared with a control group of providers. In addition, active ECHO® participants were observed to have a significantly greater reduction in opioid doses prescribed for their patients who remained on long-term opioids, compared to providers in the intervention group who were invited to participate in ECHO® but had low or no participation. Study results were accepted for poster presentation at the 2019 Military Health System Research Symposium (MHSRS), and the manuscript to report study results is in progress and projected for completion by the end of FY 2019.

- MAMC was one of the original PASTOR beta test sites, and an article was published in the March/April 2017 edition of Military Medicine regarding lessons learned from the initial 10 months of PASTOR use. PASTOR has been in continuous use at MAMC since 2014 and PASTOR assessment has been completed by more than 3,000 MAMC IPMC patients. To support secondary analysis of this large data set, data sharing agreements were established by MAMC and UW principal co-investigators with Army OTSG and the DHA SDD. PASTOR data will be merged by the DHA SDD with M2 demographic and clinical encounter data, PTDS pharmacy data, and Army e-profile data to identify correlates between PASTOR outcomes and various IPMC pain therapies, demographic factors, and functional duty-limitations that may lead to military retirement. The goal of

this analysis is to identify pain therapies that are associated with improved patient outcomes and military retention. Preliminary data analysis was accepted for presentation at the 2019 MHSRS, and data analysis is expected to be completed by the end of 2019.

- The "Integrative Modalities Plus Psychological, Physical, and Occupational Therapies" clinical trial, a $1 million 4-year clinical trial funded in 2015 by the Defense Medical Research and Development Program (DMRDP) was designed to determine if an interdisciplinary program of complementary and integrative pain therapies improved outcomes when added to a functional restoration program. The study design was described in the 2019 volume 19 of Contemporary Clinical Trials Communications. The final 6-month post-treatment PASTOR and functional measures for a sample size of 143 subjects was collected in April 2019. Preliminary data was accepted for poster presentation at the MHSRS, and final data analysis is projected by the end of 2019.

- The "Determinants of Optimal Dose and Sequence of Functional Restoration and Integrative Therapies" trial, a $2.5 million 4-year clinical trial was funded in 2018 by the DMRDP with the objective of determining the optimal treatment duration and sequence of standard and complementary and integrative pain therapies. In addition, the study includes analysis of selected biologic specimens in an effort to identify biological markers associated with positive response to various pain therapies. The study design was described in the 2018 volume 73 of Contemporary Clinical Trials. To date, 155 of the target 280 subjects have been enrolled. Preliminary data was accepted for poster presentation at the 2019 MHSRS, and the study is projected for completion in 2022.

The Services continue to develop and validate innovative practice models for pain management. For example, in FY 2016 and into FY 2017, NMCSD conducted outcome studies of the FRPP, a program created to promote Service Members' ability to return to full military duty. FRPP was piloted at NMCSD and saw a total of 13 cohorts complete the FRPP course, with 85 percent of patients achieving fit for full duty status upon successful graduation from the FRPP. Though the FRPP was paused in FY 2018, NCPMP continued efforts to codify the program's best practices and explore its expansion to other Commands. Additionally, in FY 2018, NCPMP supported the creation of a pain management pilot at NMCP. This pilot is focused on establishing a primary care/pain clinical pathway, with the ultimate goal of supporting the SCMPM by having patients evaluated by a multidisciplinary team and offering alternative therapies to manage chronic pain.

In addition, Naval Medical Branch Clinic Port Hueneme stood up a weekly full medical acupuncture clinic for ADSMs and dependents, which provides a panel of services for one ½ clinical day per week. Currently, the pilot team at Port Hueneme is using an Excel spreadsheet posted on SharePoint to track pain levels and patient progress.

Training and Education of Health Care Personnel

Project ECHO® and National Capital Region Webinars

DoD is also increasing the reach of pain specialists beyond their clinics and expanding capacity for pain management services in primary care through use of the internationally recognized Project ECHO® telementoring model. Project ECHO® uses secure, audio-visual networks to connect pain medicine specialists (hubs) with remote primary care providers (spokes) to increase providers' pain management competencies.

Project ECHO® is an evidence-based model that provides high quality medical education for common and complex diseases through telementoring and co-management of patients with primary care clinicians. In a *one-to-many* telementoring knowledge network, the Project ECHO® model helps to bridge the gap between primary care clinicians and specialists by enhancing the knowledge, skills, confidence, and practice of primary care clinicians in their local communities.

The Army began utilizing Project ECHO® telementoring clinics (listed in Appendix C) to address pain management in 2013 and currently hosts Project ECHO® pain clinics with five regional hubs and 56 spokes to deliver the JPEP curriculum. The Army Project ECHO® hubs are located at Brooke Army Medical Center, MAMC, TAMC, WAMC, and LRMC, and provide weekly didactic and clinical education to PCPCs and treatment teams. During FY 2017, over 1,100 medical personnel participated in Project ECHO® from 56 different MTFs. MAMC also includes civilian and VA partners as spokes.

The Navy utilizes Project ECHO® pain clinics (listed in Appendix C) with two hubs and 32 spokes, which expand access to pain management specialists for the Navy's primary care providers. The Navy Project ECHO® hubs are located at NMCP and NMCSD, and similar to the Army, provide weekly didactic and clinical education to primary care providers throughout Navy MTFs. During FY 2019, 45 Navy ECHO® training events were conducted through 32 different spoke locations, over 500 medical personnel participated, and over 700 Continuing Medical Education credits were awarded.

A 2018 analysis of Army and Navy Project ECHO® pain clinics' effect on opioid prescribing habits indicates substantial reductions in opioid prescription practices. Primary care providers who participated in Project ECHO® pain clinics conducted between 2012 and 2014 had a greater percent decline than a comparison group in annual opioid prescriptions per patient, average morphine milligram equivalents prescribed per patient per year, and days of co-prescribed opioid and benzodiazepine per opioid user per year. Taken together, these observations indicate a more judicial use of opioid pharmacotherapy and more engaged management of patients receiving opioid prescriptions following use of the Project ECHO® as the model telementoring platform. The Army has also initiated individual studies at local facilities to record the impact of Project ECHO® on participating providers versus non-participating providers' opioid prescribing habits.

The Air Force does not fund any Project ECHO® clinics for pain, but rather provides pain management and other education and webinars staffed through a combination of telehealth and

Air Force Medical Operations Agency personnel and funding. The Air Force also participates in a weekly telementoring clinic at the San Antonio Military Medical Center (SAMMC) in an effort to reduce the use of opioids among DoD beneficiaries. In addition, over 20 remote medical Air Force facilities and 50 primary care providers within the Air Force who lack access to an on-site pain clinic are able to take advantage of this outstanding educational opportunity.

Navy Comprehensive Pain Management Lecture Series

In support of the SCMPM, which focuses on the importance of providing accessible and high-quality pain care within the primary care setting, the NCPMP established the "Cadre of Speakers" training program in FY 2018. While the program intends to capture primary care clinicians as the target audience, all clinicians are invited to attend. The Cadre of Speakers – which consists of a reputable group of pain providers and experienced clinicians that possess in-depth knowledge of effective pain management – is now in its second iteration and has been well received overall.

In FY 2018, the NCPMP Cadre of Speakers, utilizing NCPMP funding, traveled to each of the seven NCPMP target Commands to deliver an interactive and robust lecture on topics related to pain care delivery, the biopsychosocial model, opioid prescribing CPGs, and barriers to successful implementation of the SCMPM. To encourage maximum participation while maintaining access to care, the lectures were offered over three consecutive days at each Command. Clinicians and medical staff, however, were only expected to attend one series of lectures on one of the 3 days and received appropriate Continuing Medical Education credits upon completion. In FY 2018, the Cadre of Speakers trained over 400 Navy providers.

Due to the positive feedback from the FY 2018 rollout, the NCPMP team implemented a "hub and spoke" model to facilitate expansion of the training to the remaining 20 MTFs in FY 2019. The training will be offered at the original seven pilot sites, designated the "hub," in addition to one Outside Continental United States (OCONUS) site. Additionally, the NCPMP leveraged participant feedback to make updates to existing content and to include two additional modules: Urine Drug Testing and Opioid Tapering. The PCPC, LOTS Committee Chair, as well as an additional pain provider representing the remaining 20 sites, designated the "spokes," will be provided with funding to travel to the Cadre of Speakers training occurring at the Command nearest to them. As of June 2019, the Cadre has travelled to Naval Hospital Camp Pendleton and Naval Hospital Bremerton and trained over 200 Navy Providers – more than half of the total providers trained in FY 2018.

Annual Pain Skills Training

To expand access to non-opioid pain management modalities, NCR provided the 8th Annual Pain Care Skills Training at the Air Force Academy in Colorado Springs, Colorado from August 29-31, 2018. This NCR annual pain skills training is the premier training activity in the Federal system and continues to attract 150 members of healthcare teams from across 40 MTFs CONUS and OCONUS. Teams participate in 4 days of 23 interactive workshops designed to give attendees practical hands-on experience and expand pain management knowledge and capabilities. Tri-Service clinical SMEs, as well as academic civilian partners, serve as

instructors and lead discussions during the training's plenary sessions and host full and half-day pain skills workshops.

In addition, the NCR sponsors a 3-day training for interventional pain physicians in training, as well as staff physicians. The second annual training took place May 9-11, 2019 at NMCSD with over 30 pain physicians. The attendees participated in workshops for advanced pain management skills, including ultrasound as well as surgical interventional techniques.

Additionally, NCR has developed the 2019 Pain Care Skills Training held at the SOUTHCOM Conference Center in Doral, Florida on August 26-29, 2019. The target audience for this training includes primary care team members, such as physicians, nurses, corpsmen, pharmacists, psychologists, and social workers, and focuses on integrative and interventional modalities, such as mind body techniques (e.g., yoga, tai chi, qigong, etc.), mindfulness, BFA, osteopathic/chiropractic manipulation, musculoskeletal ultrasound, and trigger point injections.

National Capital Region Alternative Medicine for Pain Training

The NCR Pain Initiative developed a number of trainings utilizing alternative treatment of pain, including a training with the Institute of Functional Medicine (IFM). This training combines IFM's Applying Functional Medicine into Clinical Practice with a 2-day case-based learning workshop that addresses the underlying causes of disease and promotes optimal wellness. This requires learners to have a detailed understanding of each patient's genetic, biochemical, and lifestyle factors and leverages that data to direct personalized treatment plans that lead to improved patient outcomes. This is patient-centered care and patient-individualized care at its best. The NCR Pain Initiative worked closely with IFM to develop the workshop so that clinicians can use the information they are learning and determine how it specifically helps with treating Active Duty pain patients within MHS. For 2019, NCR and IFM plan to work together to develop more trainings to assist providers in developing a different perspective on treating pain.

Furthermore, in relation to alternative techniques for pain, NCR developed a training called Integrating Osteopathic Manipulative Medicine and Nutritional Medicine for Pain. This course uses manual muscle testing and skilled palpation with comprehensive osteopathic and functional medicine algorithms that correctly diagnose and treat complex patient presentations. This course also covered nutritional information on an anti-inflammatory diet for the treatment of pain, insomnia, depression, anxiety, and PTSD.

Advanced Pain Management Course

The Evans Army Community Hospital IPMC team at Fort Carson, Colorado continues to conduct a 2-day Advanced Pain Management Course to educate primary care treatment teams on tools needed to address chronic non-cancer pain in the PCMH. During FY 2019, the team trained 22 providers and staff from Fort Carson and, Peterson and Nellis AFBs. Since inception of the Advanced Pain Management Course, 457 providers and staff have been trained.

NCR Primary Care Monthly Case-Based Webinars

The NCR Pain Care Initiative provides case-based education to primary care teams throughout the MHS with 3 monthly webinars on pain, addiction, and acupuncture. These programs are attended by up to 200 participants monthly. In addition, the Initiative offers buprenorphine waiver training quarterly in a webinar platform that allows prescribers in any location to attend. These monthly webinars provide Continuing Education credits for providers to learn how to:

- Discern expectations of patients and practitioners regarding opioid therapy, and the risks and benefits of the treatment options for chronic pain;
- Evaluate the use of patient-centered care including self-management to improve function and quality of life;
- Choose an appropriate chronic pain therapy in conjunction with the patient; and
- Minimize adverse outcomes of pain therapy, particularly opioid therapy, and effectively treat them if they do occur.

Data for Buprenorphine Waiver Training are as follows:

- CY17: 192 trained
- CY18: 133 trained
- CY19 (January-June): 54 trained

The monthly webinars incorporate the clinical support tools developed by the Psychological Health Center of Excellence (PHCoE) to help providers comply with the VA/DoD CPG for the Management of Opioid Therapy for Chronic Pain. These tools (examples listed below) bring together important resources for health care providers and patients on the safe and effective use of opioid therapy in treating chronic pain:

- Indications for Consultation and Referral during Opioid Therapy
- Managing Side Effects and Complications of Opioid Therapy for Chronic Pain
- Opioid Therapy and Methadone Use in Primary Care for Chronic Non-cancer Pain
- Tapering and Discontinuing Opioids
- Opioid Therapy for Chronic Pain Pocket Guide
- Taking Opioids Responsibly for Your Safety and the Safety of Others: Patient Information Guide on Long-term Opioid Therapy for Chronic Pain

Prescription Drug Abuse Awareness and Training

DoD leveraged the content from the JPEP and the updated NCR "Do No Harm" web-based interactive program to respond to the October 2015 Presidential Memorandum, "Addressing Prescription Drug Abuse and Heroin Use." Using the content from JPEP and NCR "Do No Harm," NCR, DVCIPM, and PHCoE collaborated to develop a computer-based training for DoD opioid prescribers. The Acting Assistant Secretary of Defense for Health Affairs released a memorandum instructing the Services to establish guidance to ensure all required providers receive this training. The training was published on November 24, 2016, and consists of two modules that are each approximately 1-hour long and covers guidelines for safe opioid

prescribing, including guidelines for prescribing opioids for chronic pain. By September 30, 2017, the deadline for completion of training for the DoD Opioid Prescriber Safety Training Program, 13,003 identified required prescribers out of a total of 16,170 (80.4 percent) had completed the training.

As of June 1, 2019, 11,682 identified required prescribers out of a total of 14,544 (80.3 percent) had completed the training. As of the same date, a total of 28,153 providers had completed the training; far exceeding the number for those who were required to take it.

To assist both primary care and specialty teams in managing substance use disorders, NCR hosts an annual Substance Use Disorder Symposium at WRNMMC. In 2019 this 1-day training consisted of workshops and plenary sessions focusing on diagnosis and treatment of alcohol and OUDs. Speakers included experts from the MHS as well as NIH. One hundred eighty-six members of health care teams from MHS attended both in person and virtually. In addition, this symposium is utilized to provide education on VA/DoD SUD and Opioid CPGs.

Presidential Executive Action 15, "Expanding Access to Opiate Overdose Reversal Kit Initiative," requires DoD to ensure opioid overdose reversal kits and training are available to every first responder on military bases or other areas under DoD control. Work continues to implement the Executive Action, with the current focus on determining logistics, resources, and training requirements to report implementation data.

In June 2018, the DHA published a policy related to Naloxone prescribing and dispensing in its MTFs. This DHA-PI further expanded access to naloxone by allowing pharmacists to prescribe naloxone to eligible beneficiaries at the outpatient window, upon beneficiary request or when the pharmacist determines the beneficiary meets the established criteria for "high risk". Providers continue to be first-line in prescribing naloxone; however, this DHA-PI enables pharmacists to be the second-line of defense.

Accredited Board Certification in Pain Management

DoD continues to support four Accreditation Council for Graduate Medical Education accredited Pain Medicine Fellowships - WRNMMC, SAMMC, NHP, and NMCSD. These fellowships provide sub-specialty board certification to specialists in Physical Medicine & Rehabilitation, Anesthesiology, and Neurology, who upon graduation are assigned throughout the MHS to lead Tri-Service specialty pain clinics. The programs collaborate with monthly web-based journal clubs and grand rounds, which are attended by MHS and VA pain specialists. This opportunity paves the way for effective utilization of pain management at the primary level of the SCMPM, the PCMH.

Complementary and Integrative Medicine

DoD participates in NIH's National Center for Complementary and Integrative Health (NCCIH) National Advisory Council. In December 2016, NCCIH announced the NIH-DoD-VA Pain Management Collaboratory Program (AT17-001 and AT17-002) that will coordinate support for a portfolio of multi-year, multi-site complementary and integrative health research projects in DoD and VA to:

1) Develop, adapt, and adopt technical and policy guidelines and best practices for the effective conduct of research in partnership with health care systems focused on military personnel, veterans, and their families;
2) Work collaboratively with and provide technical, design, and other support to demonstration project teams to develop and implement a pragmatic trial protocol; and
3) Disseminate widely collaboratory-endorsed policies, best practices, and Lessons Learned in the demonstration projects for implementing research within health care settings.

The DoD Physical Medicine & Rehabilitation community in collaboration with the Primary Care Sports Medicine Fellowship at USUHS continues to host annual Tri-Service training within NCR on using ultrasound and injection techniques for treating conditions such as musculoskeletal pain and post-traumatic headaches. Specialists in physical medicine & rehabilitation, primary care sports medicine, anesthesia, and primary care are also engaged in ongoing education and certification in alternative treatments to pain, including acupuncture, and contributing to local, national, and international pain education conferences and workshops.

For comprehensive care, Army has integrated behavioral health, physical therapy, and clinical pharmacists into the primary and secondary levels of care at MTFs. These integrated health assets assist in treatment of various illness and disease processes, including pain. The tertiary level of pain care in the strategically located IPMCs provides interventional, integrative, and rehabilitative therapies to relieve acute pain and minimize chronic pain. CIM therapies include clinical pain psychology, and biofeedback.

Air Force physicians have the opportunity to apply for a scholarship to attend a 300-hour certification course in medical acupuncture. For the past several years, AF has provided 16 scholarships per year to AF active duty physicians. Annually, at least 40 percent of the approximately 30 Family Medicine residents at Nellis AFB complete the medical acupuncture course to become certified medical acupuncturists by graduation. The Air Force Family Medicine Residency programs at Travis, Offutt, Eglin, Nellis, and Scott AFBs have all incorporated BFA into their course curricula ensuring the majority of the residents graduate with this important skill, which can be used at their next duty station and while deployed.

NCR trains 40 individuals quarterly in BFA and provides a monthly case-based webinar, which provides an opportunity for MHS and VA acupuncture providers to discuss topics of interest.

NCPMP is working to increase access to evidence-based CIM modalities. Some modalities such as acupuncture and chiropractic care are reserved for ADSMs. Other modalities such as acupuncture are available to non-Active Duty beneficiaries only on a space available basis in the

MTFs. Acupuncture has been shown to have particular benefit in the treatment of chronic pain, and NCPMP is seeking to update the 2013 BUMED Instruction 6320.100, "Medical, Chiropractic, and Licensed Acupuncture," to allow providers trained in acupuncture to apply the modality within their scope of practice. Additionally, the changes seek to re-privilege licensed acupuncturists from "physician extenders" to licensed independent practitioners in order to remove redundant oversight and to allow for greater access to acupuncture as a complementary modality for the treatment of chronic pain. NCPMP has also supported the development of an innovative approach to provide auricular acupuncture training to NAVMED clinicians and allied health providers through the online Relay Health® training platform.

The NCPMP CIM WG group continues efforts to expand auricular acupuncture training through establishment of a toolkit in Defense Medical Logistics Standard Support for trainers to utilize for local staff training and by providing the option for in-person training of acupuncture during the Cadre of Speakers. The NCPMP supports travel funding for CIM members certified as auricular acupuncture instructors, to support training at sites desiring to increase local provider capability to provide acupuncture treatment.

The CIM group continues work to complete the development of a "playbook," which looks at current activities across the Navy Medicine enterprise and will encompasses the various pilot programs and CIM initiatives and will include information on acupuncture clinics, nutrition for pain, and a mindfulness program, as well as outline the recommended procedures stakeholders can follow to stand up CIM initiatives at their respective commands. It is intended to support the NCPMP's efforts to promote and champion the use of alternative modalities to treat pain by providing recommendations on how to successfully design and implement programs of interest.

Patient Education and Dissemination of Information

DoD engages in several efforts to educate patients about pain management. Since 2012, the NCR-initiated Interactive Pain Management Series has educated patients on their pain diagnoses and self-management of pain-related issues. This program addresses key topics, such as understanding pain, treatments, and safe medication use. DoD offers similar pain management education programs targeting specific types of acute and chronic pain (e.g., LBP) throughout its enterprise. DoD patient information websites also facilitate effective pain management, as well as improve levels of functioning and readiness through the provision of resources.

In 2017, the JPEP augmented the didactic pain management curriculum with an additional series of educational videos. These videos were developed in order to provide standardized and consistent explanations for some of the important and complex concepts introduced in the JPEP curriculum and in recently released pain management guidelines. The initial video was developed to provide patients with a greater understanding of the paradigm shift in pain management related to the national epidemic of prescription medication overdoses. A second video was developed to provide guidance and strategies for providers who are faced with the challenge of convincing a patient that they need to taper or discontinue their opioid medication.

The JPEP videos are available on the DVCIPM website (https://www.DVCIPM.org) and the

VA's Pain Management website (http://www.va.gov/painmanagement). Initial JPEP video topics include:

1) Pain Assessment
2) Opioid Prescribing/Tapering Overview
3) Stepped Care Model of Pain Management
4) Chronification of Pain
5) Essentials of Quality Pain Care
6) Safe Disposal/Opioid Take Back Program
7) PASTOR

The Army CPMP continues to participate in the Annual Pain Awareness Campaign during Pain Awareness Month in September. Partnering with MEDCOM Public Affairs Office (PAO), Army published trifolds, postcards, a video, and social media graphics with the theme "Path to Power Over Pain" highlighting the MHS Stepped Care Model for Pain in addition to integrative and rehabilitative strategies for managing pain (Figure 6). Printed trifolds and postcards were shipped to the Regional Health Commands, the 12 IPMCs, and 16 additional Army Community Hospitals and Health Clinics to support local pain awareness month activities. MEDCOM PAO coordinated with MTFs and installation PAOs for digital messaging during September and drafted an article for publication outlining Army efforts for addressing chronic pain. Each Wednesday in September, the CPMP, along with the Air Force, Navy, and DVCIPM, hosted a pain awareness information table at Defense Health Headquarters. Each Wednesday the information would focus on the varying CIM options, such as yoga, massage therapy, and BFA.

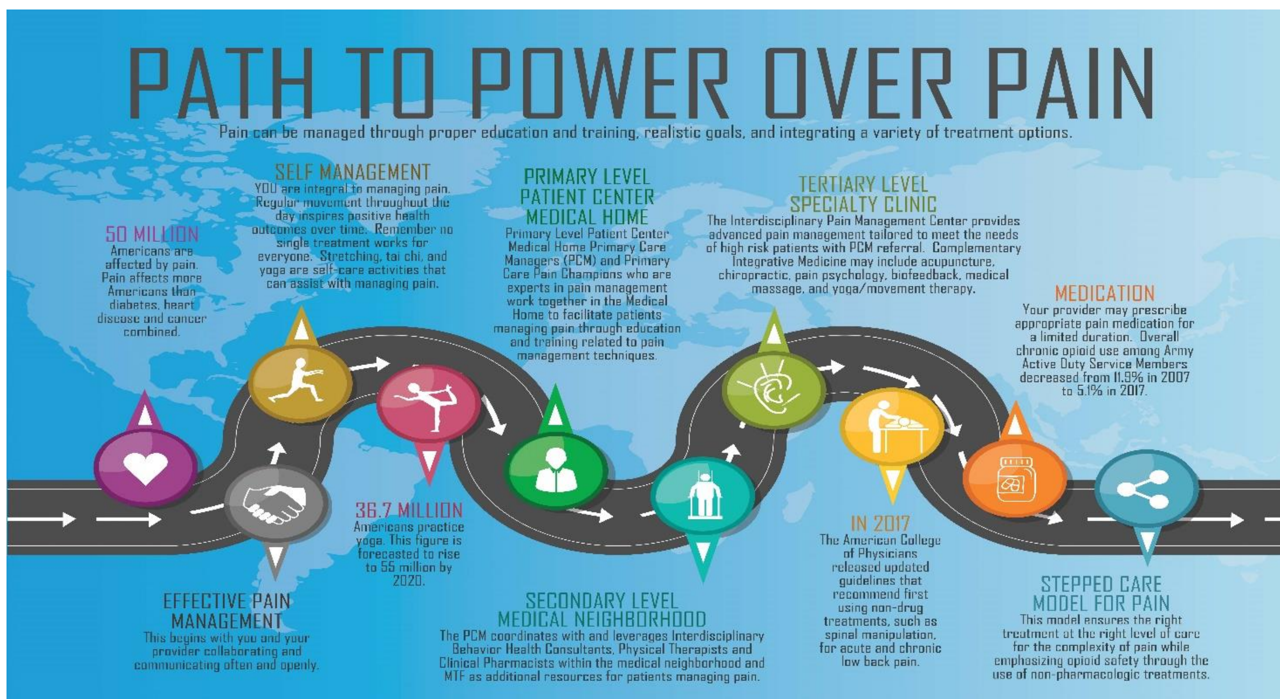


Figure 6. Army "Path to Power Over Pain."

NCR Pain Initiative developed a LBP fact sheet for patients and families that describes causes of LBP, myths, self-management prevention and treatment strategies, when patients should seek help, what questions should be asked, and what treatments are available by the health care team. NCR produced an opioid safety public service announcement (PSA), which is available to all MTFs in the MHS. The PSA for Opioid Safety includes a brief history of how the opioid epidemic has spread, education on safe medication taking, naloxone rescue, and non-opioid alternatives for treatment. NCR also produced an Opioid Safety mobile application, which allows providers and patients to access information about opioid safety and includes an interactive feature to track pain and variables associated with pain. It is available on both Android and Apple® devices and is also accessible via the Defense Information Systems Agency app store.

The NCR team has developed additional videos for use in MHS that educate patients on acupuncture, mindfulness, and yoga work, and how to practice them as a part of their pain management plan.

Within Navy, larger Commands, such as NMCP and NMCSD, have formalized patient pain education programs with curriculums, materials, and schedules. To evaluate and improve current patient education processes and resources across all Commands, the NCPMP launched its Patient Education Exploration Initiative in FY 2019. The initiative employs a human-centered design approach to understand the experiences, behaviors, attitudes, and perceptions of Active Duty pain patients. Based on informal feedback sessions with Active Duty pain patients to occur in the fall of 2019, the NCPMP will prioritize and implement patient education initiatives to address identified gaps and opportunities for improvement. This initiative will ultimately enable the NCPMP to align its patient education efforts with the needs and expectations of those who it serves.

In addition, the Commander, Submarine Force, U.S. Pacific Fleet embedded Mental Health Wellness Clinic was established to reduce stigma associated with mental healthcare and provide preventive care for mental health. In this new Wellness model, patients can see mental health providers and ask questions about mental health without the encounter being labeled as a "mental health encounter." The Wellness Clinic also offers treatment recommendations and services that do not result in duty limitations or the label of "mental health treatment," including dietary counseling and treatment, executive coaching, acupuncture, and virtual reality modalities, etc. This approach reaches the large number of people who have been "suffering in silence" because they have been afraid to even ask the questions they have about mental health and their own symptoms (for various reasons, including fear of duty limitation, fear of loss of security clearance, pride, amongst others), and allows them to receive treatment that is holistic, non-stigmatizing, and in many cases of lower cost than traditional mental health visits and treatments.

Air Force continues to focus on education for patients and their support network (family, partners, friends, etc.) through the IPMC and Pain Management Clinics. Innovative education programs are being offered in the clinics that include one-on-one or group sessions on self-help strategies for pain management, addressing the biopsychosocial model of pain, sleep strategies, mental health strategies to address social withdrawal, physical activity, and impact of pain on quality of life. Several of the IPMC offer patients one-on-one behavioral health coaching, group behavioral health pain classes. In weekly classes at some IPMCs participants receive BFA and

introductions to the various CIM modalities offered, assisting the patient in proactively choosing how to manage their pain and reduce opioid use for chronic pain. The Air Force CPMP is working to form a collaborative effort where various clinics and providers can reach out to find the best practices within AFMS and integrate these educational offerings and documents into practice. This includes a focus on non-opioid protocols like BFA, medical acupuncture, self-care and pain management innovations used in civilian sports medicine, such as microcurrent technology devices.

Summary

DoD pain management policies and initiatives focus on providing a patient-centered, holistic, multimodal, and inter-disciplinary pain care model that supports the balanced use of medications, primary care, specialty care, and self-care approaches for pain management. Improved coordination and collaboration across the MHS have resulted in several advances in pain management policy, clinical care, research, education and training products, and clinical tools that serve our beneficiaries and provide an example for the nation.

REFERENCES

ACGME Program Requirements for Graduate Medical Education in Pain Medicine (Anesthesiology, Neurology, or Physical Medicine and Rehabilitation)
Retrieved from http://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/530_pain_medicine_2 0 16_1-YR.pdf?ver=2016-09-30-123813-903

Banks, D.E., Buckenmaier, C., & Mahoney, P.F. (2015). Combat anesthesia: The first 24 hours.
Falls Church, VA: Office of the Army Surgeon General. (2011). Retrieved from http://www.cs.amedd.army.mil/FileDownloadpublic.aspx?docid=123f6b20-e846-46a6- a2c0-5840a07944c4

Centers for Disease Control and Prevention (2016). Guideline for Prescribing Opioids for Chronic Pain. Retrieved from http://www.cdc.gov/drugoverdose/prescribing/guideline.html

Department of Defense (2011). Policy for Comprehensive Pain Management (Health Affairs Policy 11-003). Washington, DC: Assistant Secretary of Defense (Health Affairs).
Retrieved from http://www.health.mil/Policies/2011/04/05/Policy-for-Comprehensive- Pain-Management

Department of Defense (2013). Medical Quality Assurance (MQA) and Clinical Quality Management in the Military Health System (MHS) (DoD Instruction 6025.13).
Washington, DC: Office of the Secretary of Defense for Personnel and Readiness. Retrieved from http://www.dtic.mil/whs/directives/corres/pdf/602513p.pdf

National Defense Authorization Act for Fiscal Year 2010, Pub.L. No. 111-84, §711, 123 Stat. 4, (2009). https://www.gpo.gov/fdsys/pkg/PLAW-111publ84/pdf/PLAW-111publ84.pdf

National Institutes of Health (2016). National Pain Strategy: A comprehensive Population Health-Level Strategy for Pain. Retrieved from https://iprcc.nih.gov/docs/HHSNational_Pain_Strategy.pdf

Office of The Army Surgeon General. (2010). Pain Management Task Force Final Report.
Retrieved from http://www.regenesisbio.com/pdfs/journal/pain_management_task_force_report.p df

White House (2014). National Drug Control Strategy. Retrieved from https://www.whitehouse.gov/sites/default/files/ndcs_2014.pdf

White House (2015). Presidential Memorandum—Addressing Prescription Drug Abuse and Heroin Use. Retrieved from
https://www.whitehouse.gov/the-press-office/2015/10/21/presidential-memorandum-addressing-prescription-drug-abuse-and-heroin

APPENDICES

Appendix A: List of Acronyms

ADSM	Active Duty Service member
AFAP	Army Family Advocacy Program
AFB	Air Force Base
AFMS	Air Force Medical Service
AIM	Alternate Input Method
AIMC	Acupuncture and Integrative Medicine Center
AMH	Army Medical Home
BFA	Battlefield Acupuncture
BUMED	Bureau of Medicine and Surgery
CDC	Centers for Disease Control and Prevention
CIM	Complementary and Integrative Medicine
COTS	Chronic Opioid Therapy Safety
CP5	Chronic Pain Five
CPG	Clinical Practice Guideline
CPMP	Comprehensive Pain Management Program
CRADA	Cooperative Research and Development Agreement
CRMRP	Clinical and Rehabilitative Medicine Research Program
DHA	Defense Health Agency
DHA-PI	Defense Health Agency – Procedural Instruction
DMRDP	Defense Medical Research and Development Program
DoD	Department of Defense
DOTmLPF	doctrine, organization, training, materiel, leadership, education, personnel, and facilities
DVCIPM	Defense and Veterans Center for Integrative Pain Management
DVPRS	Defense and Veterans Pain Rating Scale
EBPWG	Evidence-Based Practice Work Group
ECHO®	Extension for Community Healthcare Outcomes
EHR	electronic health record
EXORD	Execution Order
FRPP	Functional Restoration Pain Program
FY	Fiscal Year
HCAHPS	Hospital Consumer Assessment of Healthcare Provider and Systems
HEC	Health Executive Committee
HSSO	Health Service Support Office
IFM	Institute of Functional Medicine
IPMC	Interdisciplinary Pain Management Center
IWC	Invisible Wounds Center
JB	Joint Base
JOES	Joint Outpatient Experience Survey
JPEP	Joint Pain Education Program
LBP	low back pain
LIMDU	limited duty

LOT Long-term Opioid Therapy
LOTS Long-term Opioid Therapy Safety
LRMC Landstuhl Regional Medical Center
MAMC Madigan Army Medical Center
MEDD morphine equivalent daily dose
MHS Military Health System
MHSRS Military Health System Research Symposium
MPMC Multidisciplinary Pain Management Clinic
MTF military treatment facility
NAVMED Navy Medicine
NCCIH National Center for Complementary and Integrative Health
NCPMP Navy Comprehensive Pain Management Program
NCR National Capital Region
NDAA National Defense Authorization Act
NHP Naval Hospital Pensacola
NIH National Institutes of Health
NMCP Naval Medical Center Portsmouth
NMCSD Naval Medical Center San Diego
NSAIDS nonsteroidal anti-inflammatory drugs
OCONUS Outside Continental United States
OTSG Office of the Surgeon General
OUD opioid use disorder
PAO Public Affairs Office
PASTOR Pain Assessment Screening Tool and Outcome Registry
PCMH Patient-Centered Medical Home
PCPC Primary Care Pain Champion
PDMP Prescription Drug Monitoring Program
PHCoE Psychological Health Center of Excellence
PMCSS Pain Management Clinical Support Service
PMTF Pain Management Task Force
PMWG Pain Management Work Group
PSA public service announcement
PTSD Posttraumatic Stress Disorder
RIOSORD Risk Index for Overdose or Serious Opioid-Induced Respiratory
SAMMC San Antonio Military Medical Center
SCMPM Stepped Care Model of Pain Management
SDD Solutions Delivery Division
SME subject matter expert
TAMC Tripler Army Medical Center
TJC The Joint Commission
TSWF Tri-Service Work Flow
UCSD University of California San Diego
USMC United States Marine Corps
USUHS Uniformed Services University of the Health Sciences
UW University of Washington
VA Department of Veterans Affairs
WAMC Womack Army Medical Center

WG	Work Group
WRNMMC	Walter Reed National Military Medical Center
WVU	West Virginia University

Appendix B: Joint Pain Education Project Curriculum

1.1 Understanding Pain Video
2.1 Modern Understanding of Pain
2.2 Pain Taxonomy and Physiology
2.3 DoD/VHA Stepped Care Model for Pain Care Recovery
3.1 Assessment of Pain
3.2 Assessment Tools
4.1 Acetaminophen, NSAIDs and Opioids
4.2 Adjuvant Medications
5.1 Chronic Opioid Therapy Risk Evaluation and Mitigation
6.1 Behavioral Management of Chronic Pain
6.2 Provider Communication in Chronic Pain
7.1 Physical Based Therapeutic approaches to pain management
8.1 Integrative Pain Medicine
9.1 Pain Medicine Specialty Care
10.1 Neck Pain
10.2 Acute Low Back Pain
10.3 Chronic Low Back Pain
11.1 Shoulder Pain
11.2 Hip Pain
11.3 Knee Pain
12.1 Myofascial, Connective Tissue and Fibromyalgia Pain
13.1 Central Neuropathic Pain
13.2 Peripheral Neuropathic Pain
14.1 Headache Pain
15.1 Visceral Pain
16.1 Psychiatric Comorbidities and Pain
17.1 Geriatric Pain
17.2 Palliative and Oncologic Pain Care
18.1 Women's Pain Related Issues
18.2 Opioids and Pregnancy
18.3 Female Pelvic Pain

Appendix C: Project ECHO® Hubs and Spokes

Army

Region	Location
Regional Health Command-Europe **Hub:** Landstuhl Regional Medical Center	Baumholder (Germany) Brussels (Belgium) Grafenwoehr (Germany) Hohenfels (Germany Katterbach (Germany) Livorno (Italy) Landstuhl Regional Medical Center/Family Health Center (Germany) Landstuhl Regional Medical Center Information Management Center (Germany) Supreme Headquarters Allied Powers Europe (Belgium) Stuttgart (Germany) Wiesbaden (Germany) Vicenza (Italy) Vilseck (Germany)
Regional Health Command-Central **Hub:** Joint Base San Antonio-Brooke Army Medical Center	Fort Polk (Vernon Parish, LA) Fort Sill (Lawton, OK) Fort Bliss (El Paso, TX) Fort Carson (Colorado Springs, CO) Fort Hood (Killeen, TX) Fort Huachuca (Sierra Vista, AZ) Fort Leonard Wood (Ford Leonard Wood, MO) Fort Irwin (San Bernardino County, CA) Fort Leavenworth (Leavenworth, KS) Fort Riley (Fort Riley, KS) White Sands Missile Range, (NM)
Regional Health Command-Pacific **Hub:** Tripler Army Medical Center and Madigan Army Medical Center	Schofield Barracks Family Medicine and Troop Medical Clinic (Wahiawa, HI) Adult Medicine Patient Centered Medical Home Tripler (Honolulu, HI) Family Medicine Patient Centered Medical Home Tripler (Honolulu, HI) Warrior Ohana Patient Centered Medical Home (Kapolei, HI) Camp Zama (Zama, Japan) Camp Casey (Dongducheon, South Korea) Camp Humphreys (South Korea) Camp Carroll (Waeegwan, South Korea) Camp Walker (Daegu, South Korea) Brian Allgood Army Community Hospital/ 121st Combat Support Hospital (Seoul, South Korea) VA Pain Clinic (Honolulu, HI) Madigan Army Medical Center (Lakewood, WA)
Regional Health Command-Atlantic **Hub:** Fort Bragg and Fort Gordon	Fort Drum (Jefferson County, NY) Fort Knox (Fort Knox, KY) Fort Meade (Fort Meade, MD) West Point (West Point, NY) Fort Gordon (Fort Gordon, GA) Fort Benning (Fort Benning, GA) Fort Campbell (Fort Campbell, KY) Fort Jackson (Fort Jackson, SC) Fort Stewart (Fort Stewart, GA) Redstone Arsenal (Madison County, AL) Joint Base Langley-Eustis (JB Langley-Eustis, VA) Fort Lee (Fort Lee, VA)

Navy

Region	Location
Navy Medicine East **Hub: Naval Medical Center Portsmouth**	Naval Medical Center Portsmouth (Portsmouth, VA) Branch Health Clinic Admiral Joel T. Boone (Virginia Beach, VA) Branch Health Clinic Naval Station Norfolk (Norfolk, VA) Norfolk (Norfolk, VA) Branch Health Clinic Northwest (Yorktown, VA) Branch Health Clinic Oceana (Virginia Beach, VA) Branch Health Clinic Key West (Key West, FL) Branch Health Clinic Quantico (Quantico, VA) Branch Health Clinic Albany (Albany, GA) Branch Health Clinic Charleston, SC Branch Health Clinic Kings Bay (Kings Bay, GA) TRICARE Prime® Clinic Chesapeake (Chesapeake, VA) TRICARE Prime® Clinic Virginia Beach (Virginia Beach, VA) TRICARE Prime® Clinic Suffolk (Suffolk, VA) 633rd Medical Group-Langley (Langley, VA) Naval Hospital Jacksonville (Jacksonville, FL) Naval Air Station Jacksonville (Jacksonville, FL) Naval Health Clinic Pax River (Patuxent River, MD) Naval Health Clinic New England (Portsmouth, NH) Naval Health Clinic Cherry Point (Cherry Point, SC) Naval Hospital Guantanamo Bay (GTMO) Cuba Naval Hospital Rota (Rota, Spain) Naval Hospital Naples (Naples, Italy) Naval Medical Center Camp Lejeune* (Jacksonville, NC)
Navy Medicine West **Hub: Naval Medical Center San Diego**	Naval Medical Center San Diego (San Diego, CA) Naval Hospital Yuma (Yuma, AZ) Naval Training Center (San Diego, CA) Marine Corps Air Station Miramar (San Diego, CA) Naval Hospital Lemoore (Lemoore, CA) Naval Hospital Twenty-nine Palms (Twenty-nine Palms, CA) Branch Health Clinic Pearl Harbor (Pearl Harbor, HI) Naval Hospital Camp Pendleton (Camp Pendleton, CA) Naval Hospital Bremerton (Kitsap County, WA) Naval Air Facility El Centro (El Centro, CA) Naval Air Station North Island; Navy Health Clinic Coronado (San Diego, CA)