Implementation of the Veterans Health Administration National Pain Management Strategy

Robert D Kerns, PhD,^{1,2} Errol J Philip, PhD,³ Allison W Lee, BA,² Patricia H Rosenberger, PhD^{1,2}

¹PRIME Center/11ACSLG, VA Connecticut Healthcare System, West Haven, CT 06516, USA

²Department of Psychiatry, Yale University School of Medicine, New Haven, CT 06510, USA

³Memorial Sloan Kettering Cancer Center, New York, NY 10065, USA

Correspondence to: R D Kerns
robert.kerns@va.gov

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ABSTRACT

Since its introduction in 1998, the VHA National Pain Management Strategy has introduced and implemented a series of plans for promoting systems improvements in pain care. We present the milestones of VHA efforts in pain management as reflected by the work of the Strategy. This includes the development of the Strategy and its current structure as well as a review of important initiatives such as “pain as the fifth vital sign” and the stepped care model of pain management.

KEYWORDS

Pain, Pain management, Primary care, Veterans

According to the Institute of Medicine's recently published report on the state of pain care in the United States, “Relieving Pain in America: A Blueprint for Transforming Pain Prevention, Care, Education, and Research” [1], as many as one-third of Americans experience persistent pain at a cost of as much as \$635 billion. The report noted that military Veterans are a particularly vulnerable group with data documenting a particularly high prevalence of pain and extraordinary rates of complexity associated with multiple medical and mental health comorbidities.

Data document that as many as 50% of male Veterans treated at Veterans Health Administration (VHA) primary care clinics report the presence of pain [2], and the prevalence may even be as high as 75% among female Veterans returning from Afghanistan in Operation Enduring Freedom (OEF) or Iraq in Operation Iraqi Freedom (OIF) [3]. Painful musculoskeletal conditions are the most highly prevalent cluster of diagnosed medical conditions among OEF/OIF Veterans surpassing the rates of all diagnosed mental health conditions combined. Published observational data document that pain is one of the most frequent presenting complaints for OEF/OIF Veterans treated in the VHA particularly in patients with polytrauma [4–6]. In addition, reports suggest that the prevalence of pain complaints among Veterans is growing steadily with each passing year [7, 8].

Pain is associated with serious and diverse health problems. The presence of pain among Veterans receiving primary care in VHA facilities, relative to those not reporting pain, is associated with poorer

Implications

Practice: A process including qualitative content evaluation, usability and feasibility testing is recommended to adapt existing effective computer tailored interventions addressing multiple PTSD risk factors for veteran populations.

Policy: VHA should continue to strengthen its capacity for training the next generation of pain management specialists, including behavioral medicine specialists, and for developing, evaluating, and disseminating models of integrated pain management programs embracing primary and specialty care.

Research: Pain-relevant research needs to include the development of high fidelity metrics that can evaluate system-based approaches to providing optimal pain care.

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self-rated health, greater utilization of healthcare resources, greater prevalence of health risk behaviors and factors such as tobacco use, excessive alcohol use, weight concerns, decreased social and physical activity, lower social support, and greater ratings of affective distress [9]. Among women Veterans, pain is associated with high rates of military and nonmilitary sexual harassment and trauma [10]. Finally, pain is also among the most costly disorders treated in VHA settings [11].

This article describes a comprehensive VHA National Pain Management Strategy and its ambitious agenda for improving pain care for Veterans receiving care in its healthcare facilities. It includes a review of ongoing implementation efforts over the

first several years since it was chartered in 1998. The Strategy shares several key principles with the field of behavioral medicine as an interdisciplinary and evidence-based approach to a health problem that is best conceptualized within a biopsychosocial framework. The VHA's pain management strategy has been recognized by the Institute of Medicine as a model for improving pain care in America in its recently published report [1]. The overall objective of this article is to update previous descriptions of the Strategy and its accomplishments with a specific focus on those aspects of the approach that are specifically relevant to the emerging field of translational behavioral medicine [12–14].

VHA NATIONAL PAIN MANAGEMENT STRATEGY

In recognition of the high prevalence of pain among Veterans and its costs in terms of suffering and financial burden on Veterans and the organization, VHA introduced and implemented a series of plans for promoting systems improvements in pain care. Beginning in 1998, the former VHA Undersecretary for Health, Dr. Kenneth Kizer, launched the VHA National Pain Management Strategy. The primary objective of the Strategy was to develop a comprehensive, multicultural, integrated, systemwide approach to pain management that reduces pain and suffering for Veterans experiencing acute and chronic pain associated with a wide range of illnesses including pain at the end of life. Since the Strategy was first chartered, VHA has invested in a comprehensive effort to fully implement the Strategy. Central to its implementation efforts has been the establishment of an efficient and effective infrastructure to support the Strategy, specification of specific pain standards of care to be implemented and sustained across all VHA facilities, and the development, dissemination, and uptake of tools and resources to support systemwide improvements in pain care. The Strategy embraces a Veteran-centered, interdisciplinary, multimodal approach to pain management. Pain-relevant research, provider and patient/family education initiatives, innovation in models of service delivery and a coordinated performance improvement approach are also key objectives.

VHA NATIONAL PAIN MANAGEMENT STRATEGY INFRASTRUCTURE

An integrated top-down and bottom-up organizational approach to the Strategy has proved valuable in achieving widespread implementation and adoption of the Strategy across several hundred VHA healthcare facilities. Initially, the Strategy was chaired by two senior leaders in VHA's Central Office in Washington representing Acute Care and Geriatrics and Extended Care in order to ensure the widest possible focus across the continuum of pain care from acute pain to pain management at the

end-of-life. A National Consultant for Pain Management was hired to chair a multidisciplinary Coordinating Committee comprised of representatives from numerous other stakeholders including those representing the domains of patient education, provider education, research, quality improvement, and other patient care services. Representative disciplines included nursing, medicine, psychology, and pharmacy, among others. Each member of the Coordinating Committee chaired a Working Group focused on each of the key objectives of the Strategy and comprised of additional representatives from the field. Another key organizational approach was to require each region in VHA, called Veterans Integrated Service Networks (VISNs), to appoint a VISN Pain Point of Contact (POC) who was to be responsible for promoting dissemination and uptake of policies and other guidance from Central Office.

By 2005, a distinct Pain Management Program Office was established in VHA Central Office, and a National Program Director for Pain Management was hired. The establishment of the Program Office was an important step in acknowledging the importance placed on improving pain management in VHA and offered the opportunity to more directly influence policy, to enhance autonomy in building partnerships with other Program Offices, and to directly influence care, education, research, and quality improvement efforts. This organizational approach stands in direct contrast to most academic and healthcare settings in which Pain Management remains a section of a larger department, thus limiting the autonomy and influence of the enterprise. At the same time, efforts were made to further clarify the roles and responsibilities of the VISN Pain POCs and to require each of VHA's 153 core healthcare facilities to identify a Facility Pain POC. For the most part, POCs chaired multidisciplinary VISN and/or facility pain management committees with local responsibility for implementation of the Strategy including development and oversight of local policies and procedures consistent with VHA Central Office guidance, provider and patient education initiatives, performance improvement efforts, and related functions. Most recently, as VHA has focused on strengthening its capacity for pain assessment and treatment in the primary care setting, facilities have been encouraged to identify Primary Care Pain Champions who work at the local level in conjunction with the facility POC and pain committee. As will be highlighted throughout this article, this organizational infrastructure continues to be successful in fostering implementation of the Strategy through a continually growing pain management community of practice, a sense of shared purpose and commitment, and active participation that encourages initiative and innovation.

PAIN AS THE 5TH VITAL SIGN INITIATIVE

As the Strategy has matured over the past 13 years, best practice models have been identified and

transported across VHA facilities. In the earliest stages of implementation of the National Pain Management Strategy, VHA launched the “Pain as the 5th Vital Sign” Initiative. The Initiative was designed to serve an important role in raising awareness and encouraging healthcare providers and teams to identify and address pain when it was present. The screening uses a 0 (no pain) to 10 (worst possible pain) numeric rating scale. A comprehensive approach to implementation of the Initiative was undertaken including multiple education and training efforts at the national, VISN, and facility levels.

In 2000, VHA published a toolkit to support a comprehensive implementation of a mandate for routine screening for the presence and intensity of pain in all clinical settings. The toolkit was prepared as a resource manual for use by VHA managers and staff in implementing the VHA National Pain Management Strategy and to promote the “Pain as the 5th Vital Sign” Initiative. In addition to providing detailed policy information and instructions about these initiatives, it offers specific guidance for promoting organizational change at the facility level. For example, patient, healthcare professional and system/organizational barriers to implementing the policy for routine pain screening are discussed and suggestions for overcoming these barriers are described. The toolkit continues to serve as a primary source document for VHA and is available on the Internet for others at (<http://www.va.gov/PAINMANAGEMENT/docs/TOOLKIT.pdf>).

In support of the Initiative, VHA partnered with the Institute for Healthcare Improvement (IHI), a nonprofit organization that works to promote change in healthcare systems. The VHA/IHI Pain Management Collaborative (May 2000–January 2001) involved 70 multidisciplinary teams working together to make rapid, measurable improvements in pain management throughout VHA facilities [15]. A multidisciplinary Steering Committee specified four primary goals for performance improvement including a reduction in the percent of patients reporting moderate to severe pain and increased documentation of pain assessments, pain plans of care, and patient pain education. Local facility teams selected one or more of these goals and a clinical setting (e.g., primary care, inpatient surgery, geriatric and extended care) in which to focus their efforts. The Collaborative emphasized the use of specific metrics for establishing target behavioral goals and for monitoring performance improvement and the use of contingency management principles to reinforce successive approximation in achieving the specified goals. Facility teams worked over a nine-month period to promote and sustain improvements. Ultimately, meaningful improvement was documented in each of the four outcome domains. In a published report on the Collaborative, the authors attributed its success to several key processes: team formation and identification of local

champions, goal identification, testing and adaptation of recommended system changes, and sharing and feedback of process and outcome information.

IMPLEMENTATION MILESTONES IN THE FIRST DECADE OF THE STRATEGY

Among the several outcomes or products of the Collaborative were the establishment of a national website (www.va.gov/painmanagement) and an electronic list serve that remain as key resources for VHA's pain management practice community. Since the Collaborative, national educational conferences have been held approximately every 2 years for dissemination of new tools, resources, and best practice models, and monthly national educational teleconferences provide similar support for continued performance improvement efforts.

In addition, VHA has partnered with the Department of Defense in the publication of evidence-based clinical practice guidelines for management of opioid therapy for Veterans with chronic pain, for acute postoperative pain management, and for management of low back pain. These and other clinical practice guidelines are available at www.healthquality.va.gov. “Toolkits” are developed for each guideline and support comprehensive dissemination and implementation plans. Web-based courses that offer continuing education credits for providers have been developed on such topics as pain and polytrauma, management of complex chronic pain, and opioid therapy. By September 2005, performance improvement monitoring documented that pain assessment, treatment planning, and pain treatment reassessment were occurring in well over 90% of the clinical encounters across VHA.

In 2008, VHA launched a comprehensive patient safety initiative, and in this context, an Opioid–High Alert Medication Initiative provided policy guidance and specific recommendations for performance improvement efforts to promote safe and effective use of opioid therapy for the management of acute and chronic pain in inpatient and outpatient settings. Regular national educational teleconferences supported local initiatives to identify one or more patient safety projects. In this context, two model systems were identified and serve as excellent examples of translational behavioral medicine approaches. Opioid Renewal Clinics (ORCs) are interdisciplinary specialty clinics designed to provide high intensity support and safety monitoring for patients who may benefit from long-term opioid therapy and who are identified as at risk for misuse, abuse and/or addiction to these medications [16]. An opioid therapy clinical decision support system is a tool embedded in the electronic health record (i.e., CPRS) that is programmed to provide patient-specific guidance to prescribers informed by the published clinical practice guidelines. Feedback

from behavioral specialists encourages adaptation and use of the tool in integrative behavioral medicine practice settings [17]. These and numerous other efforts helped establish VHA as a worldwide leader in pain management.

HEALTH ANALYSIS AND INFORMATION GROUP (HAIG) SURVEY

In October 2009, VHA conducted a comprehensive pain management survey. The survey was completed by all 153 healthcare facilities in VHA and asked questions that assessed facility level compliance with provisions of the VHA Pain Management Directive, compliance with stated pain management standards of care, and availability of pain management services and staffing to support these services. Questions also focused on topics of particular interest to VHA's performance improvement efforts including expansion of specialized pain management services, especially evidence-based psychological, rehabilitation, and complementary and alternative medicine services, implementation of policies and procedures to promote safe and effective use of opioids in the inpatient and outpatient settings, and development of coordinated provider and patient/family education programs. Data documented a high rate of compliance with established policies and accepted standards of pain care and establishment of organized pain management clinics and multidisciplinary pain management centers that provided a wide array of pain management services in a large majority of facilities including behavioral pain management services. Results of the survey were presented in multiple venues to VHA patient care services and operation leaders as well as VISN and facility Pain POCs and other local champions in promoting system improvements in pain management.

VHA's STEPPED CARE MODEL FOR PAIN MANAGEMENT

Also in October 2009, VHA published its second policy statement related to the Strategy [18]. In this document, VHA established a population-based and evidence-based Stepped Care Model for Pain Management (SCM-PM) as its single standard of pain care nationwide. The Stepped Care approach is an evidence-based model that has been successfully applied in the management of chronic pain [19, 20] as well as other complex chronic health challenges including tobacco cessation [21], reduction of excessive alcohol use and alcoholism [22], and depression management [23]. In essence, the stepped care approach calls for broad and population-based public health interventions that promote screening, assessment and management of health problems via low intensity interventions followed by the introduction of more intensive, specialized, and individually tailored approaches if persons do not maximally benefit from less intensive efforts.

Application of the model for the management of pain has intuitive appeal given the high prevalence of many common pain conditions that emphasize routine screening, comprehensive assessment, and low intensity interventions as the "first step" or "tier", followed by a sequential process of more aggressive, expensive, and often risky interventions when appropriate. In its recently published report on pain, the Institute of Medicine highlighted the potential value of adopting a stepped or tiered approach to pain management and cited the VHA's model as an important example of such an approach [1]. The stages of the Stepped Care Model for Pain Management (SCM-PM) can be seen in Fig. 1.

STEP 1: PATIENT ALIGNED CARE TEAMS

Within VHA, Step 1 of the SCM-PM represents a population-based approach that utilizes a competent primary care workforce to manage the most common pain conditions. Primary care providers identify and discuss the patient's pain concerns and promote patient pain self-management [24, 25]. This begins with providing all-inclusive access to pain assessment and treatment services within the Patient Aligned Care Team (PACT), VHA's version of the Patient-Centered Medical Home. PACT team members provide the assessment and management of the most common pain conditions. Veterans can be expected to be screened for the presence and intensity of pain when other vital signs are taken and when routine screening for other health-relevant problems occurs. When Veterans report a new pain concern (i.e., acute pain) or when they report pain that is not satisfactorily managed, members of the PACT conduct a comprehensive pain assessment that informs a pain management plan of care. Teams work collaboratively with Veterans to implement evidence-based therapies including algorithmic pharmacological interventions for common nociceptive and neuropathic pain conditions, and non-pharmacological interventions including structured physical activity/exercise and other behavioral interventions that support optimal pain self-management [26]. Both patient and family education regarding the basics of pain treatment and management (e.g., medication side effects, the importance of sleep, adequate nutrition, and physical activity) may be important components.

Successful pain management within the primary care setting requires adequate system supports [27–29]. Within VHA, this includes collaboration with Primary Care–Mental Health integration teams, polytrauma programs and teams, and postdeployment programs. Models for the provision of coordinated, colocated, and collaborative care and for programs that foster concurrent assessment and management of chronic pain and important mental health comorbidities such as depression and PTSD have been emphasized [30, 31]. In this context, VHA has specifically encouraged expansion of

VA Stepped Pain Care

Fig 1 | The VA stepped care model of pain management

access to evidence-based psychological interventions such as cognitive-behavior therapy for chronic pain management [32–35]. Finally, specialized resources such as Opioid Renewal Clinics and Pain Schools are emerging in primary care settings to further support PACTs and their capacity to meet the pain care needs of the Veterans they serve.

A key challenge in implementation of the stepped pain care model is the need to enhance the competencies of primary care providers, nurses, and associated health professionals in the PACT in the domains of pain assessment and management. To support this effort, the National Pain Management Program Office and the Primary Care Program Office are collaborating on multiple fronts to develop education and training resources, clinical decision support tools and just-in-time electronic training resources to support the developing competencies of primary care providers, nurses, and associated health professionals. In 2009, these program offices chartered a multidisciplinary Pain and Primary Care Task Force to assist in this effort. Among the earliest contributions of the Task Force was development of a document that specified the competencies expected of primary care providers in the domains of pain assessment and management as well as in provider-patient communication. The document provided an initial operationalization of these key competencies and possible metrics that could be employed to assess competencies. Innovation in developing novel approaches to delivering team-based and patient-centered pain care are being encouraged through funding initiatives and other incentives.

STEP 2: SPECIALTY CARE

Patients who exhibit a greater degree of medical and/or psychiatric complexity including those patients with a greater number of medical comorbidities and who may be at greater medical risk may require additional pain management services beyond primary care. Within the context of the stepped care model, Step 2 represents specialty consultation services that should be considered if the patient continues to experience significant impairment and disability. These resources can include pain medicine, rehabilitation, and behavioral pain medicine clinics as well as substance abuse and mental health programs. In line with these recommendations, sustained expansion of specialty pain medicine services over the past 5 years has been documented. Consistent with data on patient preferences [36], VHA is working to build capacity for complementary and alternative medicine services [37], especially acupuncture [38, 39]. Models of integrative care are emerging [31, 40] and are beginning to be evaluated for their efficacy and, ultimately, their cost-effectiveness. Use of telehealth technologies such as videoconferencing and phone and web-based interventions are also supported through several medical care and research funding initiatives [33].

STEP 3: TERTIARY, INTERDISCIPLINARY PAIN CENTERS

Finally, Step 3 in the SCM-PM endorses the importance of providing Veterans with equitable access to highly specialized tertiary, interdisciplinary cares when necessary to promote recovery, rehabil-

itation, and community reintegration. This requirement acknowledges that an interdisciplinary approach to pain care is the accepted gold standard for pain management and documentation of the efficacy and cost-effectiveness of organized programs that emphasize a comprehensive multidimensional and multimodal approach [41–45]. This step targets the chronic pain patient who may be treatment refractory, continues to report disability and distress, has multiple comorbidities, and requires access and significant involvement with highly specialized tertiary, interdisciplinary teams. Step 3 pain management centers will provide services such as comprehensive medical/psychological evaluations of Veterans with complex conditions, evidence-based pharmacological, rehabilitation, and psychological interventions, coordinated interdisciplinary rehabilitation/recovery programs, focus on family or caregiver involvement when appropriate, and case management. These centers are expected to have three specific components. First, the interdisciplinary team offers advanced pain medicine diagnostics and interventions including implantable spinal cord stimulators and intrathecal medication delivery systems. Second, the centers will also provide chronic pain rehabilitation programs that are Commission for the Accreditation of Rehabilitation Facilities (CARF) approved. Thus far, VHA has one CARF-accredited pain rehabilitation program with residential capacity and three with outpatient capacity. Third, these centers are expected to have the capacity for assessment and treatment of Veterans with comorbid chronic pain and substance use disorders, particularly prescription opioid abuse and addiction. VHA has established a goal of having at least one center in each Veterans Integrated Service Network (VISN) by September 2014.

Implementation of the SCM-PM in VHA

Implementation of the SCM-PM has been supported by several key initiatives. Funding was released in 2009 to provide incentives for enhanced staffing, equipment, and education and training resources. An existing externship training program at the James Haley Veterans Hospital in Tampa, FL was provided additional funding to expand its capacity to provide consultation to VHA facility teams in support of their efforts to build high functioning interdisciplinary approaches to pain care and to apply for CARF accreditation. Additional resources include a national informational pain management website (www.va.gov/painmanagement), an active pain management list serve, monthly national teleconferences, VHA-DoD Clinical Practice Guidelines, and Talent Management System (TMS) educational courses for management of complex chronic pain, pain and polytrauma, and opioid therapy. Several funded VHA transformational initiatives have provided further support for this implementation model. A Primary Care Rural Health Initiative supported the develop-

ment of four lectures from pain management experts that are now available via the TMS. Providers who complete all four lectures and pass tests on content receive special acknowledgement for their accomplishment. In March 2011, VHA sponsored a national pain management leadership conference, “Implementing the stepped pain care model” that provided a comprehensive review of key policies and implementation guidance to optimize systemwide improvements in pain management. Participants were 319 providers representing multiple disciplines involved in care of Veterans from all VISNs.

Patient education materials that promote knowledge and pain self-management efforts are being developed for posting on VHA's patient web portal, MyHealthVet (<https://www.myhealth.va.gov>). Health services investigators in VHA have published reports on novel approaches to collaborative pain management in the primary care setting [29, 30]. In partnership with the VHA Office of Mental Health Services, an existing evidence-based psychotherapy program is soon to be expanded to build VHA's capacity for providing psychological treatment for Veterans with chronic pain. Two important work groups have been chartered focusing on ‘Pain and Primary Care’ and ‘Tertiary, Interdisciplinary Pain Centers’, and these groups will continue to develop standards and guidelines for the implementation efforts.

SUMMARY AND FUTURE DIRECTIONS

Since announcing its National Pain Management Strategy in 1998, VHA's commitment to improving pain management for Veterans has continued to evidence considerable system enhancements and improved outcomes. Figure 2 summarizes many of these important milestones in this process.

Full national implementation of the SCM-PM promises to provide an empirically informed and feasible framework for expanding the scope of the Strategy to ensure that VHA continues to be a leader in meeting the needs of those receiving care in its facilities [46].

The Strategy will continue to embrace a multi-pronged implementation approach that targets adoption of the SCM-PM and that explicitly addresses some of the key challenges facing VHA in the domain of pain management [47]. Despite widespread adoption of the “Pain as the 5th Vital Sign” as an accepted standard for effective pain screening, data from investigators in VHA have challenged the utility of the approach [48–50]. Continued investigation of alternative approaches is clearly indicated [51]. Provision of equitable access to specialty pain management and other services for Veterans living in rural settings or settings lacking in specialists is an important challenge for VHA. To address this challenge, VA

1998	VHA Undersecretary of Health charts National Pain Management Strategy
1999	VHA hires first National Consultant for Pain Management
2000	Pain as the 5 th Vital Sign Initiative launched; Publication of "Toolkit" to support implementation (www.va.gov)
2000-2001	VHA/Institute for Healthcare Improvement (IHI) Pain Management Collaborative
2001	VA and Department of Defense collaborate in publication of their first evidence-based clinical practice guidelines for pain management
2003	First VHA Pain Management Directive published
2005	National Pain Management Program Office established in VA Central Office
2008-2009	Opioid-High Alert Medication Initiative conducted
2009	Second VHA Pain Management Directive published establishing a stepped care model for pain management as single standard of pain care for VHA
2009	Health Analysis and Information Group (HAIG) Pain Management Survey conducted
2011	National Pain Management Strategy Leadership Conference, "Implementing the stepped pain care model" held in Jacksonville, FL
2011	VA Specialty Care Access Network (SCAN) initiative launched

Fig. 2 | Milestones in VHA National Pain Management Strategy

Specialty Care Access Network (SCAN) has been initiated. VA SCAN is designed to improve access to specialty care for complex and chronic diseases in rural settings using telehealth technology by allowing PACT members to connect with experts from a regional health center and receive didactics and expert case-based advice and training. Its value in building the competencies of PACT members will continue to be a focus of an important partnership involving administrators, providers, and health services researchers following a formative evaluation and implementation process. In this regard, it is important to acknowledge VHA's explicit efforts to build its capacity for implementation science through its Quality Enhancement Research Initiative (QUERI) framework. This framework is highlighted in several other articles in this special issue on VHA's translational efforts. These efforts are complemented by a broad clinical, health services, and rehabilitation research agenda, and in particular, the efforts of the recently funded VHA Health Services Research and Development "Pain Research, Informatics, Medical comorbidities, and Education (PRIME) Center" and its explicit partnership with patient care services and operations partners that can promote translation of science into practice and policy.

Not surprisingly, a key challenge for VHA relates to its goal of (re)establishing tertiary, interdisciplinary pain care centers in each VISN by 2014. In support of this effort, the Undersecretary for Health, in collaboration with the National Pain Management Program Office, has chartered a work group to

develop standards and implementation guidance for the field. This work group is currently conducting a cost-effectiveness analysis of programs that have already been developed to serve as models for other fledgling programs. It is clear that costs of delivering such care, space and staffing limitations, and lack of knowledge and negative attitudes of administrators toward interdisciplinary pain management will need to be addressed systematically in order to reach this challenging goal.

Another key challenge for VHA, and for the broader healthcare community, is the need to find the right balance between promoting timely access to prescription pain medications, especially opioid analgesics, for Veterans who can benefit from their use in the context of a comprehensive pain plan of care, while addressing the equally compelling challenge of addressing the national crisis of prescription drug abuse [52, 53]. In this context, VHA is discussing development of a comprehensive Risk Evaluation and Mitigation Strategy that can build on its recent initiatives designed to promote safe and effective opioid therapy.

VHA is committed to continuing to build its capacity for specialty pain management services including access to psychological and behavioral interventions, and for tertiary, interdisciplinary pain programs that offer comprehensive pain rehabilitation services. It will be incumbent on VHA to continue to strengthen its capacity for training the next generation of pain management specialists including behavioral medicine specialists, and for conducting pain-relevant research that can inform

future improvements in pain care. Finally, VHA health services investigators and program office (e.g., the National Pain Management Program Office, the Office of Mental Health Services, the Office of Primary Care Services) and operations (i.e., VISN) partners will need to work collaboratively to develop high fidelity metrics that can be employed to systematically evaluate the implementation of the SCM-PM and its outcomes including effectiveness, costs, and sustainability. It is likely that the impact of VHA's organizational approaches to promoting optimal pain care for the Veterans it serves will only be fully realized through its efforts to systematically evaluate processes and outcomes of change and to disseminate this information through a broad array of outlets including publication of findings in peer-reviewed journals.

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