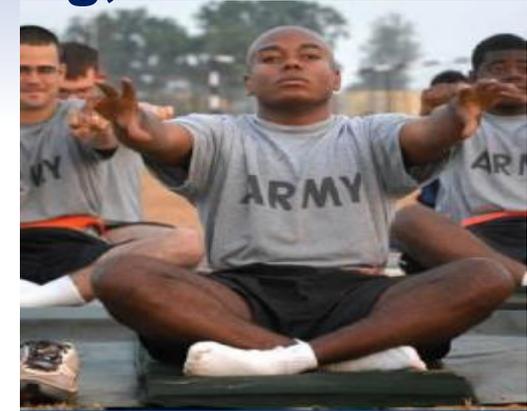


*“Major Current Research Initiatives and Priorities:
Department of Defense”*

**The Role of Nonpharmacological Approaches to Pain Management: A Workshop
The National Academies of Science, Engineering, Medicine**

December 4-5, 2018



Eric B. Schoomaker, MD, PhD, FACP, Lieutenant General US Army (retired)

**42nd Army Surgeon General and Former Commanding General,
US Army Medical Command**

**Professor and Vice-Chair for Leadership, Centers & Programs, Military & Emergency Medicine
Uniformed Services University of the Health Sciences, Bethesda, MD**

Disclosures

- **Financial relationships with commercial interests:**

Eric B. Schoomaker, MD, PhD has documented that he has nothing personal to disclose. His spouse is a yoga therapist, mindfulness teacher and co-owner of Myndwell, a mindfulness training program.
- **This presentation does not contain off-label or investigational use of drugs or products**
- **The opinions expressed represent solely the views of the presenter and do not reflect official policy of the DoD or USU.**

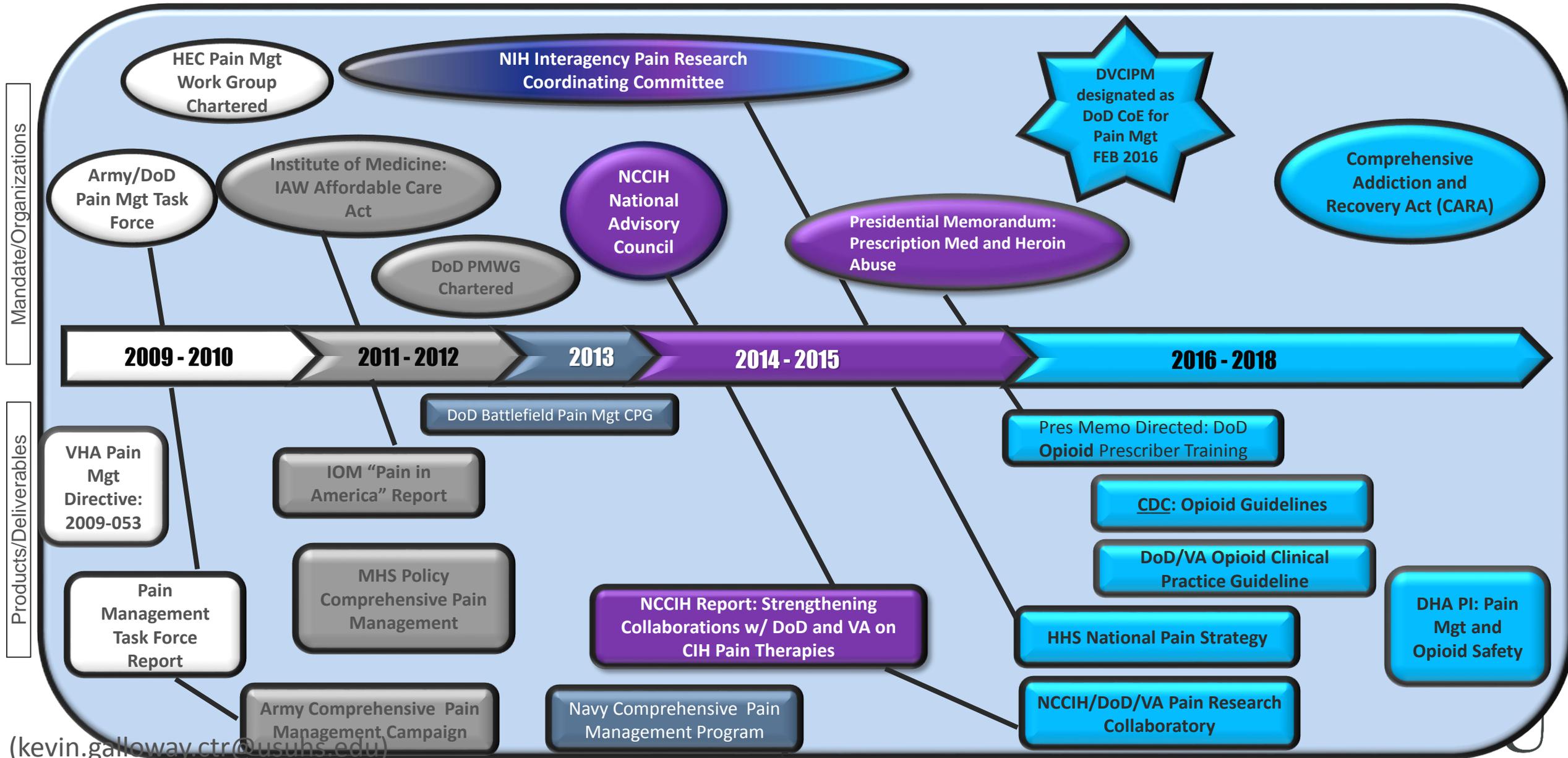
Brief Overview of Roles & Missions of DoD Medicine: Military Health System (MHS)

- Executes a vertically integrated health promotion & healthcare delivery system for 9.5 M beneficiaries: prevention; health promotion; acute care thru rehabilitation—garrison and deployed
- Funds and conducts requirements-based research
- Directs care through policy development and implementation
- Part of a continuum of healthcare delivery with the Veterans Health Administration (VHA) and other elements of Federal Medicine

Research Initiatives and Priorities in DoD Pain Management

- Translational/implementation science—evidence-based, effective care into practice
- Focus on pain management while tackling opioid overuse, abuse and use disorder
- Alignment with other Federal Medicine partners, esp. VA
- Enhancing a “whole of Government” approach to pain management

Evolution of Federal Medicine Pain Management & Opioid Safety



Unprecedented Battlefield Survival

- Improvements on the battlefield
 - Better trained medics
 - Improved equipment
 - Far forward emergency & surgical care
- Improvements in evacuation
- Improvements in recovery & rehabilitation



The Pain Challenge in VHA: DoD is the Gateway

In Veterans, chronic pain is common.

- Veterans: more than 50% of older Veterans experience chronic pain
 - 60% of Veterans from Middle East conflicts;
 - Up to 75% of female Veterans
- More than 2 Mil Veterans with chronic pain diagnosis (In 2012, 1/3 on opioids)

NHIS: interview of 67,696 US adults in 2010-14

National Health Interview Survey (NHIS) (2016)

- **66% of Veterans vs. 56% of non-veterans** with pain in prior 3 month
- Most common pain conditions in Veterans (as % of all Veterans):
 - Joint pain (43.6%)
 - Back pain (32.8% - axial 20.5%, sciatica 12.2%)
 - Neck pain (15.9%)
 - Migraine (10.0%)
 - Jaw pain (3.6%)

Musculoskeletal pain conditions

Nahin RL, J. *Pain* 2016

The intersection of mind & body

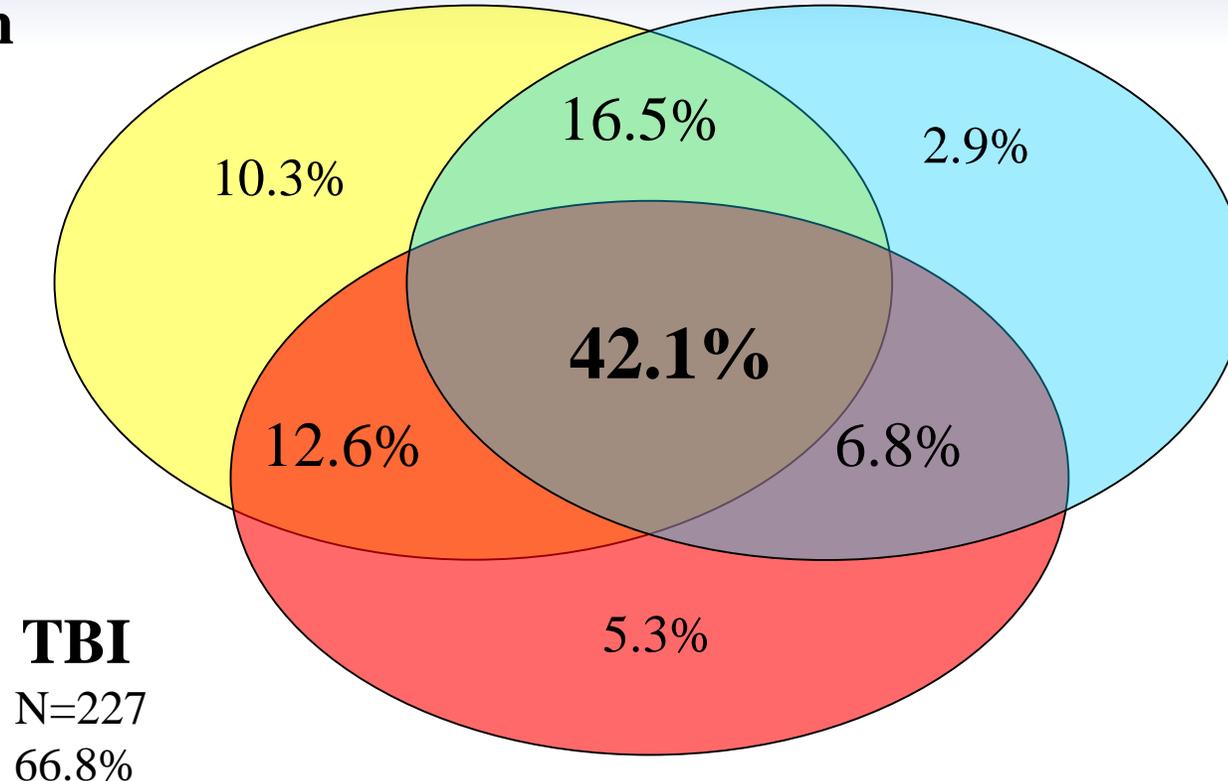
Prevalence of Chronic Pain, PTSD and TBI in
a sample of 340 OEF/OIF veterans with polytrauma

Chronic Pain

N=277
81.5%

PTSD

N=232
68.2%



TBI

N=227
66.8%

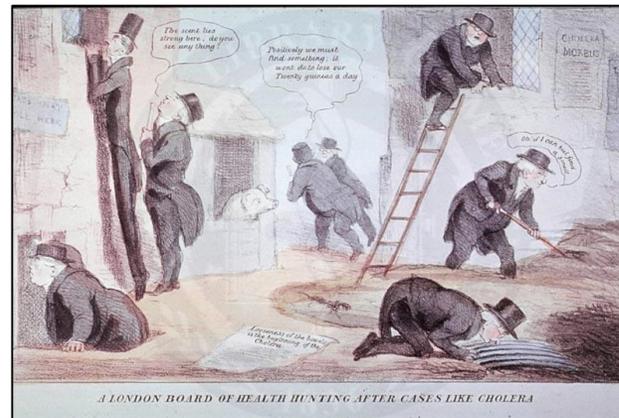
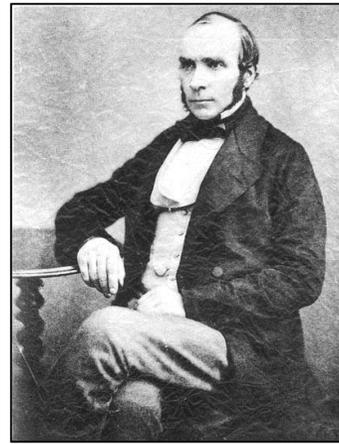
Lew, Otis, Tun et al., (2009). Prevalence of Chronic Pain, Post-traumatic Stress Disorder and Post-concussive Symptoms in OEF/OIF Veterans: The Polytrauma Clinical Triad. *JRRD*.

Managing An Epidemic

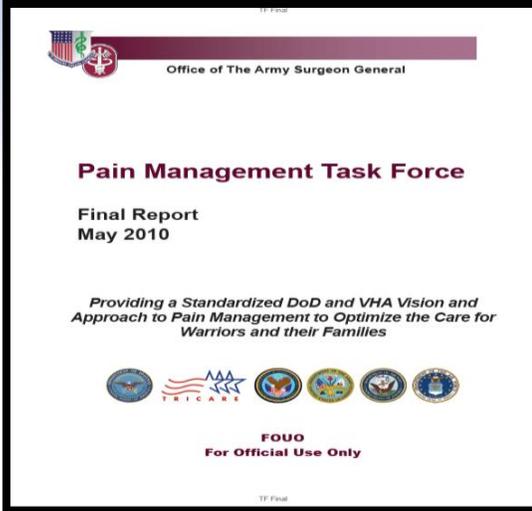
London, 1854:

Cholera, John Snow and the Broad Street Pump

Another epidemic:
Cholera

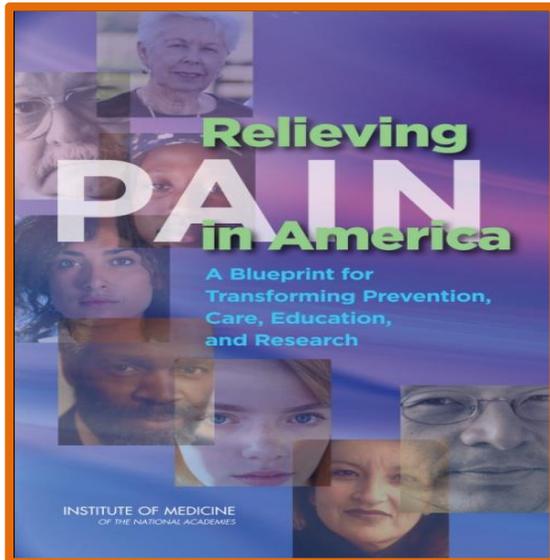


Pain Management Task Force



– Provide recommendations for a DoD comprehensive pain management strategy that is **holistic**, **multidisciplinary**, and **multimodal** in its approach, utilizes **state of the art/science** modalities and technologies, and provides **optimal quality of life** for **Soldiers and other patients** with acute and chronic pain.

➤ *Army Pain Management Task Force Charter; signed 21 Aug 2009*



– *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research*

➤ *Institute of Medicine; June 2011*

Comprehensive Pain Management

➤ Evidence-Based Complementary and Alternative Therapeutic Modes

Since PMTF Report have added:

- Acupuncture
- Biofeedback
- Yoga
- Meditation
- Music therapy
- Mindfulness Meditation
- Medical Massage
- Chiropractic
- Tai Chi/Qi Gung

➤ Standardizes Pain Management Services at echelons of care across our Medical Treatment Facilities: Team-Based

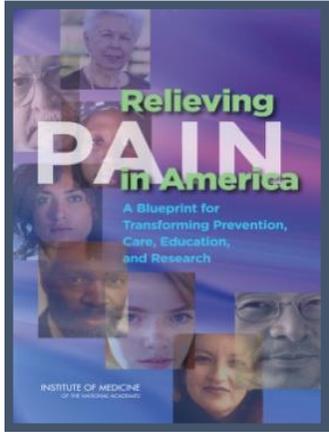
➤ Provides optimal quality of life for Soldiers and patients with acute and chronic pain

Interdisciplinary



Holistic

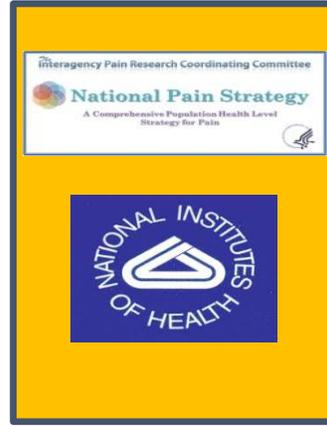
Multimodal



IOM: Pain Report (2011)



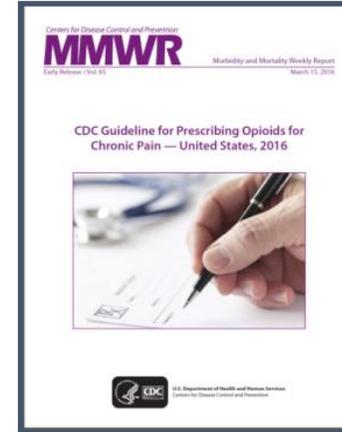
NCCIH: DoD and VA Effectiveness Research on Complementary Integrative Medicine Interventions(2014)



HHS: National Pain Strategy (2014)



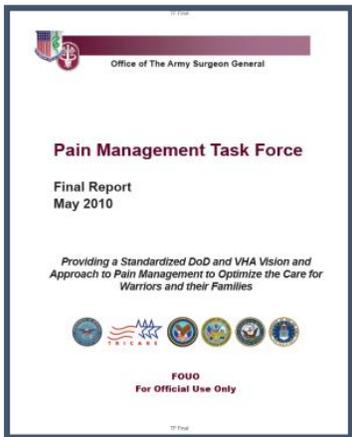
Presidential Memo: Rx Medication and Heroin Abuse (2015)



CDC Opioid Prescribing Guidelines (2016)



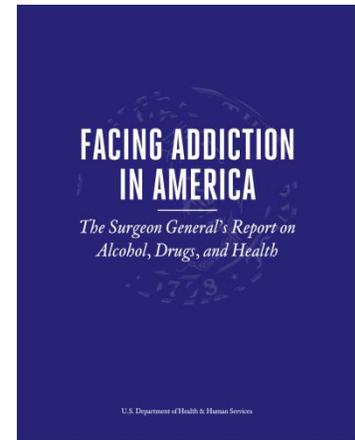
Comprehensive Addiction and Recovery Act (2016)



DoD: PMTF Report (2010)



Working Together



US Surgeon General's Report: Facing Addiction in America(2016)

Advancing Evidence-Based Complementary & Integrative Practices and Consensus Guidelines



ACP American College of Physicians™
Leading Internal Medicine. Improving Lives

Noninvasive Treatments for Acute, Subacute, and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians

Amir Qaseem, MD, PhD, MHA; Timothy J. Wilt, MD, MPH; Robert M. McLean, MD; and Mary Ann Forciea, MD; for the Clinical Guidelines Committee of the American College of Physicians*

Description: The American College of Physicians (ACP) developed this guideline to present the evidence and provide clinical recommendations on noninvasive treatment of low back pain.

Methods: Using the ACP grading system, the committee based these recommendations on a systematic review of randomized, controlled trials and systematic reviews published through April 2015 on noninvasive pharmacologic and nonpharmacologic treatments for low back pain. Updated searches were performed through November 2016. Clinical outcomes evaluated included reduction or elimination of low back pain, improvement in health-related quality of life, reduction in work disability and return to work, global improvement, number of back pain episodes or time between episodes, patient satisfaction, and adverse effects.

Target Audience and Patient Population: The target audience for this guideline includes all clinicians, and the target patient population includes adults with acute, subacute, or chronic low back pain.

Recommendation 1: Given that most patients with acute or subacute low back pain improve over time regardless of treatment, clinicians and patients should select nonpharmacologic treatment with superficial heat (moderate-quality evidence), massage, acupuncture, or spinal manipulation (low-quality evidence). If pharmacologic treatment is desired, clinicians and patients should select nonsteroidal anti-inflammatory drugs or skeletal muscle relaxants (moderate-quality evidence). (Grade: strong recommendation)

Recommendation 2: For patients with chronic low back pain, clinicians and patients should initially select nonpharmacologic treatment with exercise, multidisciplinary rehabilitation, acupuncture, mindfulness-based stress reduction (moderate-quality evidence), tai chi, yoga, motor control exercise, progressive relaxation, electromyography biofeedback, low-level laser therapy, operant therapy, cognitive behavioral therapy, or spinal manipulation (low-quality evidence). (Grade: strong recommendation)

Recommendation 3: In patients with chronic low back pain who have had an inadequate response to nonpharmacologic therapy, clinicians and patients should consider pharmacologic treatment with nonsteroidal anti-inflammatory drugs as first-line therapy, or tramadol or duloxetine as second-line therapy. Clinicians should only consider opioids as an option in patients who have failed the aforementioned treatments and only if the potential benefits outweigh the risks for individual patients and after a discussion of known risks and realistic benefits with patients. (Grade: weak recommendation, moderate-quality evidence)

Ann Intern Med. doi:10.7326/M16-2367
For author affiliations, see end of text.
This article was published at Annals.org on 14 February 2017.

Annals.org

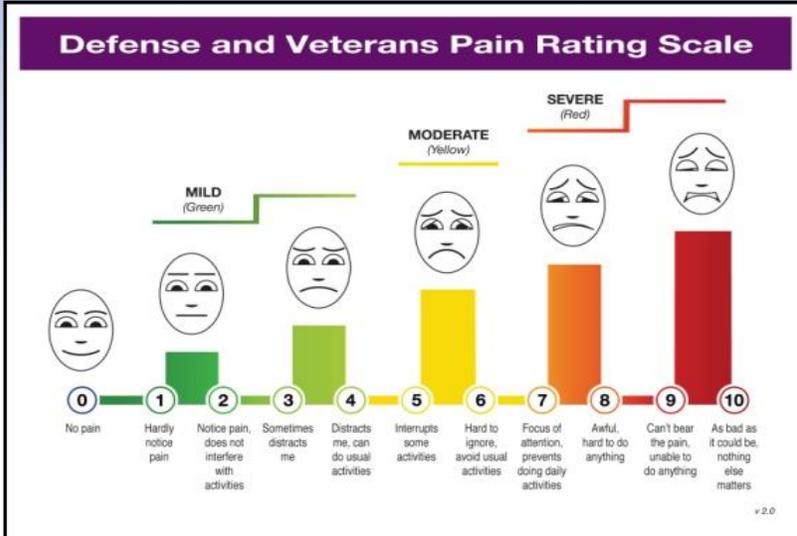
Low back pain is one of the most common reasons for physician visits in the United States. Most Americans have experienced low back pain, and approximately one quarter of U.S. adults reported having low back pain lasting at least 1 day in the past 3 months (1). Low back pain is associated with high costs, including those related to health care and indirect costs, including missed work or reduced productivity (2). The total costs estimated to low back pain in the United States were \$100 billion in 2006, two thirds of which were indirect costs of lost wages and productivity (3). Low back pain is frequently classified and treated on the basis of symptom duration, potential cause, presence or absence of radicular symptoms, and corresponding anatomical or radiographic abnormalities. Acute back pain is defined as lasting less than 4 weeks, subacute back pain lasts 4 to 12 weeks, and chronic back pain lasts more than 12 weeks. Radicular low back pain results in lower extremity pain, paresthesia, and/or

See also:

- Related articles 1
- Editorial comment 2
- Summary for Patients 3
- Web-Only CME quiz 3

* This paper, written by Amir Qaseem, MD, PhD, MHA; Timothy J. Wilt, MD, MPH; Robert M. McLean, MD; and Mary Ann Forciea, MD, was developed for the Clinical Guidelines Committee of the American College of Physicians. Individuals who served on the Clinical Guidelines Committee from initiation of the project until its approval were Mary Ann Forciea, MDT (Chair); Thomas D. Denberg, MD, PhD† (Immediate Past Chair); Michael J. Barry, MD†; Cynthia Boyd,

Defense and Veterans Pain Rating Scale (DVPRS): Changing the Culture of Pain Care



DoD/VA PAIN SUPPLEMENTAL QUESTIONS
For clinicians to evaluate the biopsychosocial impact of pain

- Circle the one number that describes how, during the past 24 hours, pain has interfered with your **ACTIVITY**:
0 Does not interfere | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Completely interferes
- Circle the one number that describes how, during the past 24 hours, pain has interfered with your **SLEEP**:
0 Does not interfere | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Completely interferes
- Circle the one number that describes how, during the past 24 hours, pain has affected your **MOOD**:
0 Does not affect | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Completely affects
- Circle the one number that describes how, during the past 24 hours, pain has contributed to your **STRESS**:
0 Does not contribute | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Contributes a great deal

*Reference for pain interference: Cleeland CS, Ryan KM. Pain assessment: global use of the Brief Pain Inventory. Ann Acad Med Singapore 23(2): 129-138, 1994. v 2.0

Defense and Veterans Pain Rating Scale (DVPRS)

- **Validated:** Measures pain intensity AND biopsychosocial and functional impact of pain (*sleep/stress/mood/activity*) **Pain Medicine. 2012:14;110-123**
- **Improved objective components** to evaluate treatment effectiveness
 - *Provides greater insight on treatment progress and improvements in function and quality of life*
- **Adaptable** to multiple clinical settings and scenarios throughout the continuum of care and research
 - *(e.g. battlefield, transport, Primary Care, specialty services)*
- Since its initial validation in 2012, the DVPRS has been **integrated into clinical practice** in a variety of clinical settings across the MHS and in growing number of clinicians/organizations in civilian practice.
- Formerly designated as the **MHS pain scale for adolescents and adults** per the DHA PI for Pain Management and Opioid Safety (April 2018)

Download DVPRS at: <http://www.dvcipm.org/clinical-resources/pain-rating-scale>



PASTOR

PAIN ASSESSMENT SCREENING TOOL
AND OUTCOMES REGISTRY

RESEARCH | OUTCOMES REGISTRY | CLINICAL DECISION TOOL

- Web application served from MAMC
 - Clinical Assessment
 - Using validated computer adaptive testing (CAT) PROMIS instruments
 - Clinical Report/Decision Tool
 - Longitudinal pt pain/function/alert data in concise format
 - Patients Enter Information Prior to Appointments
 - Using the web capable device of their choice

Thank you!

Questions?

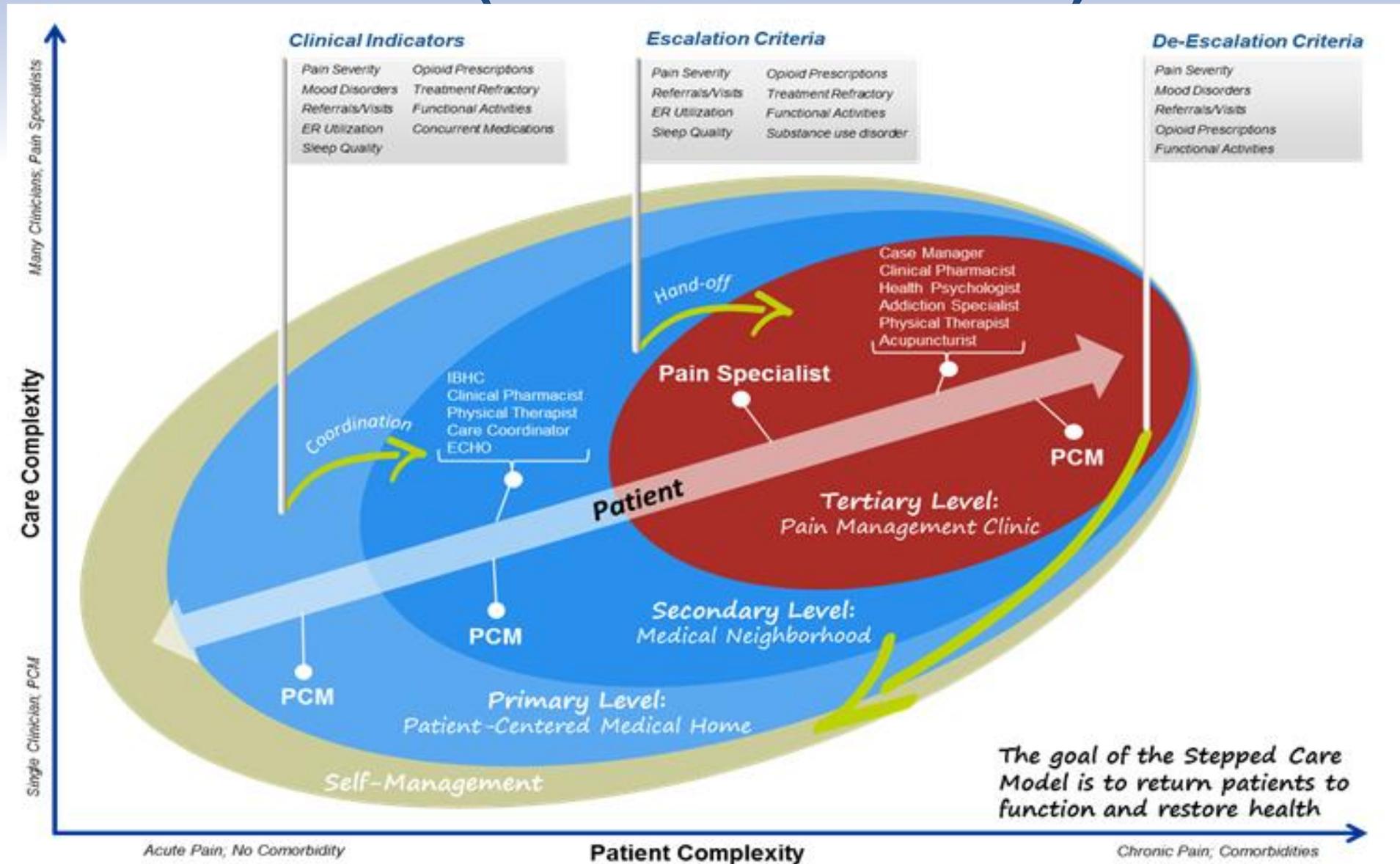


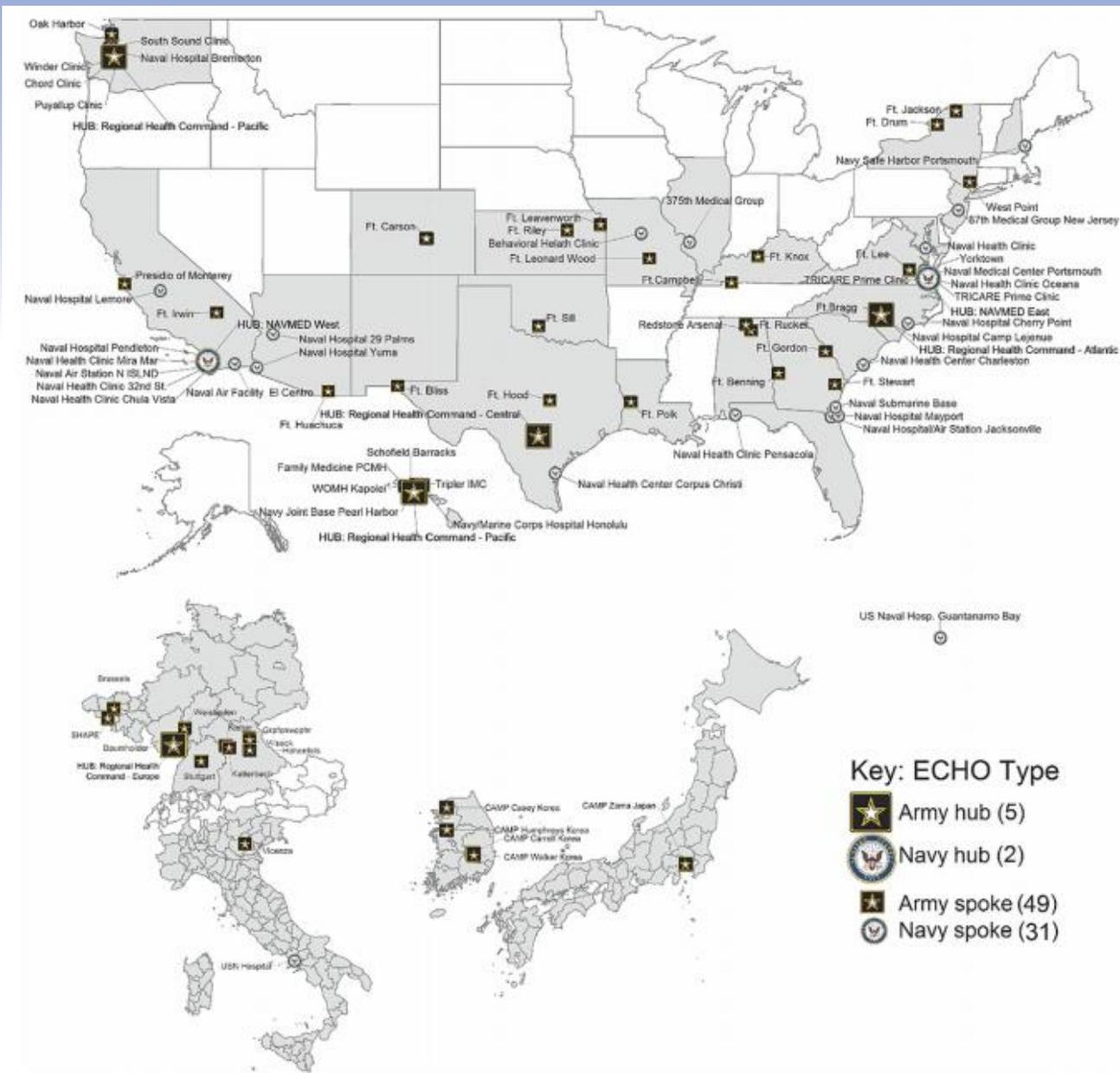
Lessons from the Samueli Chronic Pain Breakthrough Collaborative



From “Chronic Pain Care Model”, 2013-2016; Samueli Institute Chronic Pain Breakthrough Collaborative, Alexandria, VA

Military Health System Stepped Care Model (Based on VA Model)





JG. Katzman, et al. (2018) Army and Navy ECHO Pain Telementoring Improves Clinician Opioid Prescribing for Military Patients: an Observational Cohort Study. *J Gen Intern Med* DOI: 10.1007/s11606-018-4710-5

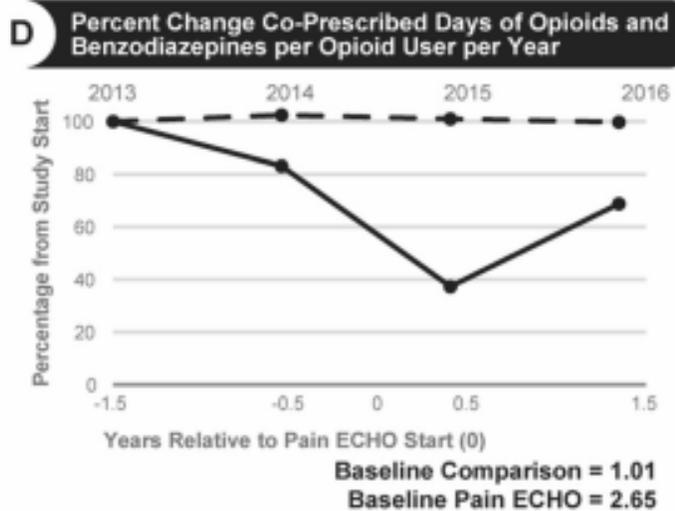
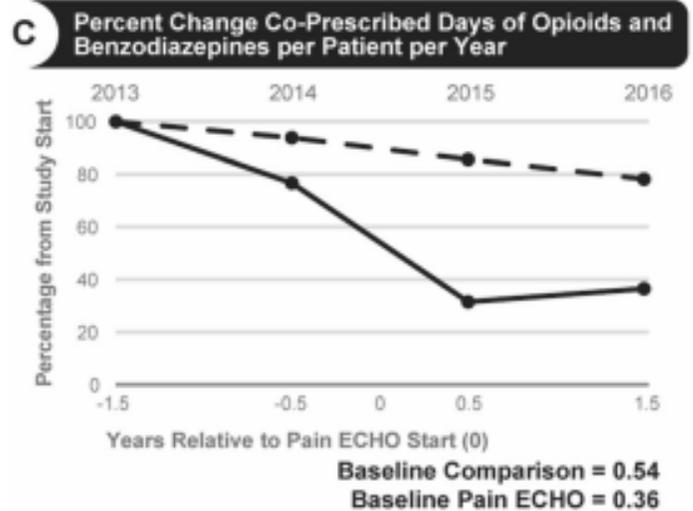
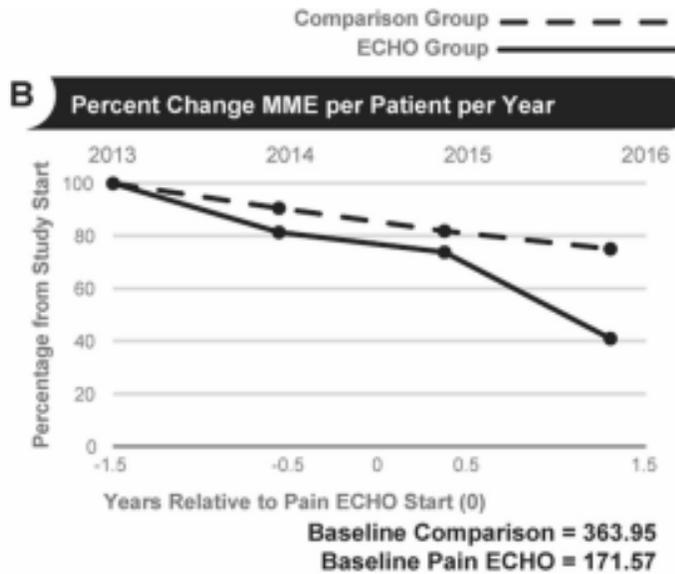
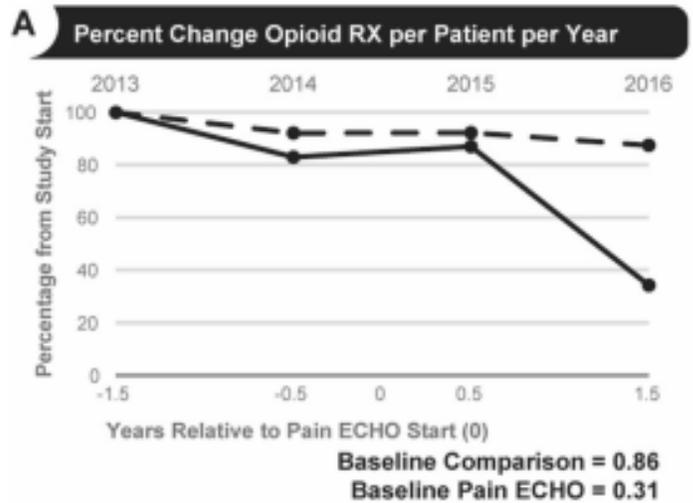


Fig. 3 Percent change for selected outcome measures.

Annualized Patients
seen per year

Comparison group 1,187,945

ECHO group 52,941

Joint Pain Education Project (JPEP)

- *Our teams, Our Centers, Our Departments, Our Shared Model of Quality Pain Care*



- 9.6 million Healthcare Beneficiaries
- Annual budget of approx. \$50 billion
- Worldwide network of 59 military hospitals, and 360 health clinics,

- Cares for 8.9 million Veterans each year
- Annual budget of approx. \$68 billion
- 168 VA Medical Centers
- 1,053 outpatient sites of care

JPEP GOALS AND OBJECTIVES:

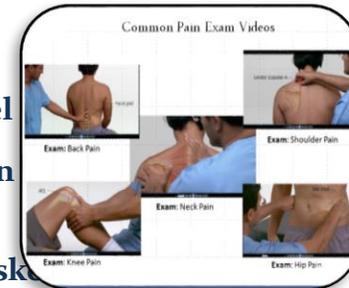
- Develop a basic curriculum to promote a synchronized approach to pain management across DoD & VA
- Improve pain care transitions between DoD and VA healthcare systems
- Streamline process for integrating new and emerging pain management medical evidence and prescribing guidelines into clinical practice education and training

DIDACTIC MODULES*

- 31 Modules
- Each module structured to be delivered or viewed in 20-30 mins
- How to Examine
- Red Flags
- How to Treat
- When to Refer
- *Version 2.0 coming soon

VIDEO ADJUNCTS

- Understanding Pain
- New Pain Paradigm
- Chronification of Pain
- Safe Opioid Prescribing
- Initiating Collaborative
- Opioid Tapering
- Pain Assessment
- Stepped Care Pain Model
- 6 Essentials of Good Pain Management
- Most Common Musculoskeletal



- (Back, Neck, Hip, Shoulder, Knee)



Auricular Acupuncture or “Battlefield Acupuncture”(BFA)

