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# Improving Chronic Pain Management with Interprofessional Teams

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## Maine Chronic Pain Collaborative 2

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### Maine Quality Counts

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#### Project Partners:

- University of New England
- Community Health Center, Inc.
- Weitzman Quality Institute of Community Health Center, Inc.

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January 1, 2015 through October 31, 2016

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## **Structured Abstract** (250 word max)

Purpose: The purpose of the Maine Chronic Pain Collaborative (ME CPC2) initiative was to provide interdisciplinary and interprofessional education to support primary care practices in building effective interdisciplinary teams to improve the management of patients with chronic pain; additionally, this effort aimed to promote the integration and implementation of clinical/practice guidelines to raise the standard of care for patients with chronic pain, and to evaluate the outcomes of these efforts on the delivery of care for patients with chronic pain.

### Scope:

A Chronic Pain Leadership Group was convened to provide guidance and direction for the project. Project staff led the practice application and selection process and made final practice selections in March 2015. From April 2015 through June 2016, practices participated in case presentations twice a month through a telehealth video connection to the Community Health Center (CHC) in Connecticut, linking with the multi-disciplinary team of pain management experts at the Integrative Pain Center of Arizona. Throughout the 14-month intervention period, the project team provided direct outreach and education to practice teams through site visits conducted by Provider Peer Consultants, email communications, telephone check-ins, and regular webinars and conference calls. The project team helped practices develop plans to collect real-time data to provide feedback to providers, and sites were supported in developing team-based workflows and systems using specific decision-support tools. Three educational sessions were held and focused on interdisciplinary and interprofessional methods, 10 key changes for chronic pain management, and best practices utilized by participating practices.

The last phase of the project focused on sustainability and spread to both state and national groups around Chronic Pain Management. There were four main components to these efforts; the Chronic Pain & Controlled Substance Playbook, suggested metrics for chronic pain and opioid management, the Quality Counts Lunch & Learn Webinar Series, and the Caring for Me Initiative. The Chronic Pain Playbook is a step-by-step guide with recommendations and templates to improve outcomes for patients with chronic pain or patients who are prescribed controlled medications. The Caring for ME initiative is a statewide collaborative effort that aims to bring together a wide set of partners to promote shared messages, educational resources, and practical tools for health care providers combatting the opioid epidemic in Maine.

### Methods:

Researchers from Community Health Center, Inc.'s (CHC's) Weitzman Quality Institute collected baseline and post-intervention data through chart review, electronic health record data retrieval queries, survey instruments, and interview scripts. Throughout the project, CHC collected data on Project ECHO Pain Sessions. Results were analyzed and summarized in a report on project outcomes.

### Results:

Following the educational intervention, Primary Care Providers' (PCPs) pain-related knowledge and self-efficacy to treat patients with pain increased significantly between pre-intervention and post intervention. We reviewed 534 charts from the panels of 25 PCPs across 12 organizations for the baseline and follow up periods. After participation in the intervention, PCPs were significantly more likely to document functional assessment, to provide patient education, and to reassess the patient's pain level in the follow-up analysis period than in the baseline analysis period. PCPs who participated in the intervention demonstrated an increase

from pre- to post- in documentation of patient’s pain-related functional goals, screening for comorbid mental health diagnosis, review of prescription monitoring program, opioid agreements, and urine toxicology assessments for their patients with chronic pain.

Key Words:

Chronic pain management, interprofessional education, quality improvement, opioid prescribing

**Purpose** (Objectives)

In order to achieve the objectives of “building effective interdisciplinary teams to improve the management of patients with chronic pain through interdisciplinary and interprofessional education” and “integrating and implementing clinical/practice guidelines as a set of practical, relevant, and practice-based activities to drive improvement in both care and cost effectiveness,” Maine Quality Counts (QC) brought together three institutions with considerable strengths to meet these objectives through the Maine Chronic Pain Collaborative 2 (CPC2). QC leveraged our substantial experience working with primary practice teams to provide quality improvement (QI) support, including our work on the Maine Chronic Pain Collaborative (CPC1) to promote improvements in chronic pain management. Additionally, QC partnered with faculty from the University of New England (UNE) which brought considerable expertise in interprofessional collaborative practice (IPCP) and interdisciplinary practice. Lastly, we partnered with the Community Health Center (CHC) of Middletown, CT, which has extensive experience with chronic pain management through the Project ECHO (Extension for Community Healthcare Outcomes) video case conferencing, promoting interdisciplinary learning by linking primary care providers and teams with multidisciplinary pain management experts from the Integrated Pain Center of Arizona.

Goals and strategies supported two primary objectives of the initiative: (1) provide interdisciplinary and interprofessional education for the care of patients with chronic pain that includes both primary care providers and pain management specialists; interprofessional practice-based learning; use of validated tools and quality improvement approaches; and an emphasis on providing team-based services; and (2) provide resources to educate and promote system changes with participating practices that raise the standard of care for patients with chronic pain, and evaluate the outcomes of these efforts that impact the delivery of care for patients with chronic pain. Objectives and strategies to achieve these goals may be found in Table 1.

**Table 1. Key Objectives and Strategies**

<b><i>Objective 1: Improve provider confidence, competence, knowledge and skills to manage chronic pain using interdisciplinary and interprofessional educational activities</i></b>
<ul style="list-style-type: none"> <li>• Link primary care providers with interdisciplinary chronic pain management specialists through Project ECHO Pain</li> </ul>
<ul style="list-style-type: none"> <li>• Spread provider interdisciplinary and interprofessional education and skills training through enduring web-based resources</li> </ul>
<ul style="list-style-type: none"> <li>• Provide support from Provider Peer Leaders</li> </ul>
<b><i>Objective 2: Improve systems of care and the capacity of primary care practice teams to manage chronic pain</i></b>

<ul style="list-style-type: none"> <li>• Offer a structured system of collaborative learning</li> </ul>
<ul style="list-style-type: none"> <li>• Support practice teams in implementing team-based, multidisciplinary systems change using a QI approach and a set of standardized key changes for chronic pain management (See Appendix A)</li> </ul>
<ul style="list-style-type: none"> <li>• Provide practice teams with evidence-based interprofessional trainings (e.g., Interprofessional Collaborative Practice (IPCP) and TeamSTEPPS in Primary Care trainings)</li> </ul>
<p><b><i>Objective 3: Build compassion and empathy for treating chronic pain by strengthening patient-provider partnerships</i></b></p>
<ul style="list-style-type: none"> <li>• Incorporate the patient voice using narratives and video portraits</li> </ul>
<ul style="list-style-type: none"> <li>• Offer Choosing Wisely decision aids that promote more productive patient-provider interactions</li> </ul>
<ul style="list-style-type: none"> <li>• Provide enduring resources for interprofessional training that promote patient and family-centered care and raise the standard of care for patients with chronic pain care</li> </ul>
<p><b><i>Objective 4: Evaluate the impact of the above interventions</i></b></p>
<ul style="list-style-type: none"> <li>• Pre- and post-intervention data from multiple sources: EHR systems, using queries and chart reviews, online survey instruments, phone interviews and progress reports</li> </ul>
<ul style="list-style-type: none"> <li>• Operational data collection following CPC2 Learning Sessions, monthly webinars and ECHO Pain sessions</li> </ul>
<ul style="list-style-type: none"> <li>• Interview data obtained from individual members of all improvement teams</li> </ul>

With the support of the Chronic Pain Leadership Group, our multi-stakeholder steering group, we identified a set of “key changes” for chronic pain management for participating practices to implement during the 14-month intervention. These “Chronic Pain Key Change” concepts are summarized below:

1. Leadership and culture of safety
2. Team-based approach to care
3. Risk stratification & population management
4. Comprehensive assessment & evaluation of chronic pain
5. Comprehensive approach to co-management of chronic pain
6. Mindful approach to initiating opioids for pain management
7. Safety first with patients receiving opioid therapy
8. Inclusion of patients & families
9. Integration of community & clinical resources
10. Optimal use of health information technology to support effective chronic pain management & safe prescribing, including use of Maine Prescription Monitoring Program (PMP)

**Scope** (Background, context, settings, participants, incidence, and prevalence)

Maine has the unfortunate distinction of having the nation’s highest rate of prescribing for long-acting and high-dose opiate medications, with a rate that is twice the national average. Over the past two decades, the problem of chronic pain management and rates of opioids for chronic pain have escalated dramatically. Additionally, primary care providers are increasingly challenged to manage chronic pain. A review of current practice in Maine has shown a disturbingly high frequency of unsafe prescribing practices including high dosing of opioids, concurrent use of opioids and benzodiazepines, and use of chronic opioids in the presence of addiction. At the same time, primary care providers, particularly those in rural areas, express high levels of stress, frustration, and fatigue when facing the challenge of chronic pain management, and report often feeling isolated, alone, and unprepared to manage the complex issues presented by chronic pain. In the course of frequent interactions with primary care

providers throughout the state, it was found that they are asking for help and are eager for assistance and support to address this increasingly challenging and complex issue.

Participation in this educational and quality improvement initiative was offered through a competitive application process open to all primary care practices in Maine, with particular efforts to recruit practices from rural communities. Using predefined selection criteria and guidance from our multi-stakeholder Chronic Pain Leadership Group, we selected 14 practices to participate in the 14-month intervention. These practices selected based on their commitment to improve chronic pain management using evidence-based models to improve care, and their demonstrated capacity and willingness to use performance data to improve clinical quality, efficiency, and patient experience related to chronic pain management. (See Appendix C for CPC2 application and scoring rubric).

Selected practices were asked to sign a Memorandum of Agreement (MOA) outlining the specific expectations of their participation, including identification of a leadership team to serve as practice “clinical champions” to lead and spread practice improvement efforts related to chronic pain management at their practice site and to participate in the evaluation and collaborative learning activities. The MOA may be found in Appendix D.

In addition to the Chronic Pain Leadership Group that met monthly by phone to advise the project, a new multi-stakeholder group was convened in July 2015 to assess needs and current opportunities to support primary care practices in quality improvement efforts centered on improving health outcomes for adult patients. The new Quality Counts Health Improvement Partnership Leadership Group (QCHIP) is comprised of stakeholders representing health care provider associations, consumer organizations, employers, payers, and other key stakeholder groups with an interest in improving health care and population health outcomes for patients. The charge of QCHIP is to provide operational guidance, advice and direction for Maine Quality Counts adult health improvement collaboratives and initiatives, including the Chronic Pain Collaborative. The group ensured CPC2 successfully implemented support for practices engaged in efforts to the quality of care provide to patients with chronic pain. Meetings were held on July 8, 2015, December 9, 2015 and July 13, 2016.

Project funding was used to support the costs of three CPC2 learning sessions and sponsoring presenters from Project ECHO Pain to provide in-person presentations. On May 28, 2015, the first learning session was held in Hallowell, Maine with 60 attendees representing all participating CPC2 practices. Samantha Shepard, an individual living with chronic pain and premedical student at University of New England, kicked off the learning session by sharing her personal experience living with chronic pain and what she wished her providers when treatment was initiated after an injury. Presentations throughout the day focused on initiating quality improvement efforts focused on treating chronic pain, identifying patients with chronic pain, maximizing patient function and setting the stage for data collection and evaluation.

On November 19, 2015, the second learning session was held in Augusta, Maine with over 60 attendees from all 14 primary care practices of CPC2. Susan Dudley Gold, chronic pain patient and founder of the Chronic Pain Support Group of Southern Maine, set the tone for the day, providing eight steps to fostering a relationship between patients living with chronic pain and healthcare providers. The day-long learning session also included a keynote address by R. Corey Waller, MD, MS, an Addiction and Pain Specialist with the Center for Integrated Medicine

of Spectrum Health Medical Group in Grand Rapids, Michigan who discussed their team based approach to care for patients with chronic pain.

On May 19, 2016, the final learning session was held in Hallowell, Maine with over 60 attendees. The day's keynote speaker, Erin Rhoda of the Bangor Daily News, spoke movingly of her project to document the life of Garrett Brown whose tragic overdose death last year at the age of 21 highlights the human aspect of addiction and substance use disorders. She urged everyone present to continue this important work of telling patient stories to help patients feel heard and access treatment. Another highlight of the day was a presentation by Dr. Bennet Davis, co-founder of the Integrative Pain Center of Arizona. Dr. Davis provided attendees with tips on how to identify patients who have landed on "Pill Island". Pill Island centers on the concept of pain without tissue pathology that occurs as the result of psychological reasons and is frequently the result of depression, anxiety and/or past traumatic experiences. The day was rounded out by additional presentations from Dr. Noah Nesin (Penobscot Community Health Care), Kathy Davis (Integrative Pain Center of Arizona), Eric Haram (Mid Coast Hospital Addiction Resource Center), Gordon Smith (Maine Medical Association) and Dr. Lisa Letourneau (Maine Quality Counts). Topics included the recent changes in healthcare related Maine law, the need to take action in addressing Maine's opioid crisis, integration of lifestyle medicine in pain management, treatment of insomnia in the pain patient, practical advice for having difficult conversations with patients and the importance of addressing suffering and emotional pain in the management of chronic pain. A visual record of the day was created by a graphic facilitator, Evan Wondolowski of Collective Next, and large pictorial boards (see Appendix G) were created to capture key parts of each presentation and the discussion by CPC participants. As the project came to a close, practice teams were asked to provide feedback about their experience in the Chronic Pain Collaborative by answering the following questions:

1. How did you your team celebrate success?
2. How did your team handle a hurdle or difficult situation?
3. Tell us a story about your journey
4. How did you get a patient off "Pill Island?"
5. What was our biggest 'ah-ha' moment?
6. How do you plan to sustain the work?

Across all questions, project participants indicated the most important elements impacting their quality improvement efforts included identifying a roster of patients on more than 100 morphine milligram equivalents (MMEs) dosages of opioids; educating providers, practice team and patients; including behavioral health as part of chronic pain management; working as a team; and helping patients to identify their motivation for tapering their high-dose opioids.

A "TeamSTEPPS in Primary Care" training was also utilized to provide practices with a methodology for creating strong teams and using communication tools to improve care and patient safety. A training was held on July 30, 2015 with a total of 53 attendees, including 16 CPC2 participants representing four practices. Following the training, QC initiated "TeamSTEPPS in 10" in an effort to support practices in optimizing patient outcomes by building strong teams. TeamSTEPPS in 10 is a teaching tool originally created by Mary Salisbury, Founder and President of The Cedar Institute, Inc., to provide tips and tools that could easily be highlighted and embedded 'in 10' minutes during an practice's existing team meeting. Using the framework and principles of [TeamSTEPPS](#), QC provided monthly tip sheets, videos and team building activities to assist practices in enhancing team structure, communication, leadership,

situation monitoring and mutual support within their practice. Monthly TeamSTEPPS in 10 topics and activities may be found at: <https://www.mainequalitycounts.org/articles/157/teamstepps-in-10>. TeamSTEPPS principles and tools were also highlighted during webinars and at Learning Sessions by Dr. Dora Anne Mills, UNE’s Vice President for Clinical Affairs who oversees UNE’s clinical interprofessional education and collaborative practice activities.

As part of the learning collaborative, QC hosted 12 webinars facilitated by local and national experts on chronic pain management. See Table 3 for a full list of topics and presenters.

**Table 3. Webinar Topics and Presenters**

Date	Webinar Topic & Presenters	Attendance
April 9, 2015	CPC2 Kick-off Webinar  <u>Presenters:</u> <ol style="list-style-type: none"> <li>1. <i>Noah Nesin, MD, FAAFP</i>, Vice President of Medical Affairs, Penobscot Community Health Care (PCHC)</li> <li>2. <i>Daren Anderson, MD</i>, Vice President/Chief Quality Officer of the Weitzman Institute, Community Health Center, Inc.</li> </ol>	45
May 14, 2015	Setting Standards of Care  <u>Presenters:</u> <ol style="list-style-type: none"> <li>1. <i>Gordon Smith, JD</i>, Executive Vice President, Maine Medical Association (MMA)</li> <li>2. <i>Dora Anne Mills, MD, MPH, FAAFP</i>, Vice President of Clinical Affairs, University of New England (UNE)</li> <li>3. <i>Rachel Crowe, RN</i>, Clinical Quality Coordinator, Sacopee Valley Health Center (SVHC)</li> <li>4. <i>Jen McCarthy, MEd, MS, LCPC</i>, Behavioral Health Consultant, SVHC</li> <li>5. <i>Elisabeth Mock, MD, MPH, FAAFP</i>, MMA Academic Detailer</li> </ol>	43
June 11, 2015	Optimizing the Role of Team Members in Managing Chronic Pain  <u>Presenters:</u> <ol style="list-style-type: none"> <li>1. <i>Dora Anne Mills, MD, MPH, FAAP</i></li> <li>2. <i>J. Adrienne McAuley, PT, DPT, MEd, OCS, FAAOMPT</i>, Assistant Clinical Professor &amp; Academic Coordinator of Clinical Education, UNE</li> <li>3. <i>Beth-Ann Lieberman, DO</i>, Bucksport Regional Health Center</li> <li>4. <i>Robin Pritham, MD</i>, Medical Director, Eastern Maine Medical Center (EMMC) Family Medicine Residency Program</li> </ol>	45
July 9, 2015	Interpreting Urine Toxicology Screening in the Clinic  <u>Presenters:</u> <ol style="list-style-type: none"> <li>1. <i>Alane O’Connor, DNP</i>, Maine Dartmouth Family Practice</li> <li>2. <i>Noah Nesin, MD, FAAFP</i></li> <li>3. <i>Kevin Cowell, DO, MPH</i>, DFD Russell</li> </ol>	30
August 13, 2016	Trauma Informed Care  <u>Presenters:</u> <ol style="list-style-type: none"> <li>1. <i>Lisa Najavits, PhD</i>, Professor of Psychiatry, Boston University School of Medicine</li> <li>2. <i>Patrick McFarlane, LCSW, MSW, MA, MSN</i>, Faculty, EMMC Family Medicine Residency Program</li> </ol>	37

Date	Webinar Topic & Presenters	Attendance
September 10, 2015	Utilizing Functional Assessment in Chronic Pain Management  <u>Presenters:</u> <ol style="list-style-type: none"> <li><i>Bennet Davis, MD</i>, President of Integrative Pain Center of Arizona and Chief Medical Officer of Employers Health Alliance of Arizona</li> <li><i>Donald Medd, MD</i>, Internist, Westbrook Internal Medicine</li> </ol>	37
October 8, 2015	Safety First with Patients Receiving Opioid Therapy & Taper Tools  <u>Presenters:</u> <ol style="list-style-type: none"> <li><i>Dora Anne Mills, MD, MPH, FAAP</i></li> <li><i>Noah Nesin, MD, FAAFP</i></li> <li><i>Richard Entel, MD</i>, Grace Street Recovery Services</li> </ol>	25
December 10, 2015	Team Approaches to Chronic Pain Including Social Work, Behavioral Health & Integrative Medicine  <u>Presenters:</u> <ol style="list-style-type: none"> <li><i>Shelley Cohen Konrad, PhD, LCSW, FNAP</i>, Director of Social Work, Director of Interprofessional Education Collaborative, UNE</li> <li><i>Brent Scobie, PhD, LCSW, CCS</i>, Clinical Director, Acadia Hospital Restorative Health</li> <li><i>Megan Britton, MD</i>, PCHC Seaport Community Health Center</li> </ol>	30
January 14, 2016	Expanding the Team when Caring for Patients Living with Chronic Pain  <u>Presenters:</u> <ol style="list-style-type: none"> <li><i>Edward Bilsky, PhD</i>, Vice President for Research and Scholarship; Founding Director, Center for Excellence in Neuroscience; Co-Director, Center of Biomedical Research Excellence for the Study of Pain and Sensory Function, UNE</li> <li><i>Stephen Hull, MD</i>, Medical Director of Medical Pain Management, Mercy Pain Center</li> </ol>	25
February 11, 2016	Integration of Community and Clinical Resources  <u>Presenters:</u> <ol style="list-style-type: none"> <li><i>Noah Nesin, MD, FAAFP</i></li> <li><i>Eva Quirion, FNP</i>, St. Joseph Internal Medicine</li> <li><i>Clare Desrosier, MSW</i>, Executive Director, Diversion Alert</li> </ol>	29
March 10, 2016	Marijuana and Chronic Pain  <u>Presenters:</u> <ol style="list-style-type: none"> <li><i>James Li, MD</i>, MMJ Physician Services</li> <li><i>Christian Teter, PharmD</i>, Associate Professor of Psychopharmacology, UNE</li> </ol>	23
April 14, 2016	Working with Pregnant Mothers & Babies: An Introduction to Snuggle ME Guidelines  <u>Presenters:</u> <ol style="list-style-type: none"> <li><i>Kelley Bowden, MS, RN</i>, Maine CDC and Snuggle ME Project</li> <li><i>Karen Dawson, LSW</i>, PCHC CHAMP (Collaborative Home Alternative Medical Program) Clinic</li> </ol>	24

At the start of all webinars, the patient voice was incorporated using “[Portraits of Pain](#)”, a collection of video patient narratives produced by UNE’s Center for Excellence in Neurosciences in collaboration with UNE’s Interprofessional Education Collaborative. The Portraits of Pain series offered unique insights into the lives of Maine patients experiencing chronic pain. A total of ten video narratives were shared. In addition, two individuals portrayed in the videos were in attendance at the first and second Learning Sessions to share their story in person and to



provide recommendations on communication and chronic pain treatment strategies to providers. At the conclusion of each webinar, participants were asked to complete surveys to not only provide feedback on the content delivered but to also indicate how new knowledge they gained would impact their care of patients with chronic pain.

Participating primary care practices also participated in bi-monthly Project ECHO Pain™ videoconferencing. Project ECHO Pain is an evidence-based, videoconferencing healthcare delivery model designed to maximize primary care physicians' ability to care for complex chronic pain patients by linking them to pain medicine specialists. Through a telehealth video connection to the Community Health Center (CHC) in Connecticut, linking with the multi-disciplinary team of pain management experts at the Integrative Pain Center of Arizona, practices took part in interdisciplinary learning through didactic presentations (see Table 4) and participated in e-grand rounds in which primary care providers presented complex or difficult pain cases.

**Table 4: Project ECHO™ Pain Schedule, Didactic Presentations and Attendance**

PROJECT ECHO™ PAIN		
DATE	TOPIC	ATTENDANCE
September 3, 2015	Psychotropics in Pain Management	23
September 17, 2015	Difficult Conversations Regarding Opioid Prescribing for Chronic Non-Malignant Pain: Avoiding Pitfalls, Managing Conflict, and Keeping It Patient-Centered	20
October 1, 2015	Nonsteroidal Anti-inflammatory Drugs (NSAIDs)	14
October 15, 2015	Pain Exam in Primary Care - Principles	24
November 5, 2015	Low Back Pain in Primary Care	N/A
November 19, 2015	Back Pain III - Interventional Treatment	16
December 3, 2015	<i>Orthopedic Exams</i>	15
December 17, 2015	Headache in Primary Care	21
January 7, 2016	What is Pain?	12
January 21, 2016	Pain Assessment in Primary Care I & II: Principles & Assessment	18
February 4, 2016	Headache in Primary Care	18
February 18, 2016	Pain Exam in Primary Care - Principles	21
March 3, 2016	Neuropathic Pain Principles	23
March 17, 2016	Psychological Factors Affecting Pain	16
April 7, 2016	Psychological Approaches to Pain Management	17
April 21, 2016	Psychological Nervous System Trauma and Pain	16
May 5, 2016	Low Back Pain in Primary Care: Back pain > Leg pain	14
June 2, 2016	No didactic presentation	16
June 16, 2016	Low Back Pain in Primary Care	10

**Methods** (Study design, data sources/collection, interventions, measures, limitations)

### **Intervention & Implementation**

QC contracted with four Provider Peer Consultants who completed a total of 43 site visits in 13 primary care settings over the course of the project. These Peer Consultants shared knowledge, tools, and resources to participating CPC2 providers, and importantly, provided support and collegiality while bringing the credibility of another provider who has "been there"

through the challenges of chronic pain management. The four Provider Peer Consultants provided periodic outreach and support to 3-4 participating practices each, with the goal of helping practice providers provide leadership and direction to the practice’s ongoing improvement efforts with managing chronic pain. They provided education, peer support, and expert consultation to increase knowledge of best practices and evidence-based courses of treatment for managing chronic pain; supported provider self-efficacy with the management of chronic pain; and encouraged provider behavior change in times of delivery system re-design, providing “just in time” support and trouble-shooting. Additionally, they provided assistance to help practices assess and/or analyze their current processes and approaches to caring for patients with chronic pain and supported the practice team’s lead provider identify priorities and develop action plans for improvement. Provider Peer Consultants consisted of:

- **Richard Entel, MD** is a family physician experienced in addiction medicine, including experience leading development of opioid dependency programs. Dr. Entel is a family physician who has practiced family medicine and emergency medicine in a range of practice settings in Maine, and has extensive experience in addiction medicine. He has developed opioid addiction services in several clinical sites, and helped to develop a coordinated addiction and dual diagnosis counseling program.
- **Anne Graham, NP** has been a nurse practitioner for 30 years, practicing in primary and pediatric neurology. She has been actively involved in health care reform for over 10 years. Anne is a Quality Improvement Specialist for Maine Quality Counts.
- **Elisabeth Mock, MD, MPH, FAAFP** is a family physician with extensive experience in education and academic detailing, including safe prescribing for chronic pain management. Dr. Mock is an adult hospitalist at Eastern Maine Medical Center and she serves as an Academic Detailer with the Maine Independent Clinical Information Service (MICIS), bringing evidence-based prescribing and treatment recommendations to providers throughout the state of Maine by leading small seminars, giving hospital grand rounds and delivering CME lectures to state association meetings.
- **Noah Nesin, MD, FAAFP** is the Vice President of Medical Affairs at Penobscot Community Health Center, Maine’s largest Federally Qualified Health Center, and has extensive experience in working with policymakers and providers to improve chronic pain management and safe prescribing.

**Table 5. Common Peer Consultant Site Visit Themes**

<b>Visit 1 (May 2015)</b>	<b>Visit 2 (August 2015)</b>	<b>Visit 3 (December 2015)</b>	<b>Visit 4 (March 2016)</b>
Goal setting	Review of baseline data	Patient Provider Agreement	Data collection
Aim Statement	Prioritizing patients by MME dosages	Urine tox screening	Electronic health record metrics integration
Development of patient panel	Office workflows	Prescription Monitoring Program	
Practices’ strengths	Opioid Risk Tool, ACE Questionnaire, Functional Assessments	Alternative treatments for pain	
Having difficult conversations	Behavioral health integration		

Ways to integrate behavioral health	ME Chapter 21 regulations		
ECHO case presentations	Having difficult conversations (scripting)		

In addition to visits with Provider Peer Consultants, QC offered participating practices education through the Maine Independent Clinical Information Service (MICIS). MICIS is an innovative academic detailing service designed to provide independent, evidence-based prescribing information on the treatment of common clinical problems to Maine prescribing providers. MICIS Academic Detailers Erika Pierce, MMS, PA-C and Elisabeth Mock, MD, MPH, FAAFP provided free on-site education on Opioid Prescribing to providers of the Chronic Pain Collaborative. Topics discussed in the 2-session training included chronic pain and opioid use; non-opioid options for treating acute and chronic pain; Maine Chapter 21 regulations and monitoring; and compassionate tapering and comprehensive pain management. MICIS training complemented the education provided to practices through the CPC2 Learning Collaborative as it helped to establish foundational knowledge of opioid prescribing best practices at the very start of the project. Erika and Dr. Mock conducted a total of 17 on-site MICIS trainings.

### Evaluation Design

Evaluation of the Chronic Pain Collaborative was conducted in partnership with Community Health Center Inc.'s Weitzman Quality Institute and participating practice sites. The evaluation model focused on known gaps in care and incorporated both process measures and provider and patient outcomes (i.e. changes in key processes for chronic pain management, along with measures of provider participation, satisfaction, and knowledge, and patient functional status and quality of life). The evaluation also included both quantitative and qualitative data collection and analysis, and a composite set of metrics that provided greater validity and enhanced understanding of the results of the multifaceted intervention. Pre- and post-intervention information on provider knowledge and attitude was collected using provider surveys. The time interval between the pre- and post-data collection was the length of the intervention with participating practices (i.e. 14 months).

We measured the extent to which the intervention had been adopted by using a series of surveys and phone interviews administered both pre- and post-intervention. Provider surveys were used to measure knowledge, self-efficacy, adherence to pain management standards of care and attendance and satisfaction with the interventional activities. In addition, data on intervention activities were collected on a regular basis throughout the intervention period (i.e. bi-monthly for all ECHO sessions and monthly/quarterly for the Collaborative activities). Patient measures included the impact of pain on patient function and quality of life. All adult patients ( $\geq$  age 18) with chronic pain of any cause cared for at sites participating in CPC2 were eligible to be reviewed as part of the evaluation. To identify patients, a validated algorithm was used that included a combination of visit codes, medication data, and pain scores to identify patients with chronic pain. See Table 2 for an outline of metrics and data collection methods.

**Table 6. Metrics and Data Collection Methods**

<b>1. Primary Care Provider Outcomes</b>
<ul style="list-style-type: none"> <li>KnowPain-50 Survey – a 50-item validated tool for assessing physician pain management knowledge</li> </ul>

<ul style="list-style-type: none"> <li>• Pain Care Beliefs Survey – an 11-item measure assessing PCP’s attitudes and beliefs regarding pain care</li> </ul>
<ul style="list-style-type: none"> <li>• Project ECHO Beliefs Survey – a 21-item measure</li> </ul>
<b>2. Opioid Prescribing Safety &amp; Monitoring</b>
<ul style="list-style-type: none"> <li>• % of PCP adult panel receiving opioid prescription</li> </ul>
<ul style="list-style-type: none"> <li>• % of high-dose opioid prescriptions (&gt;100 mg morphine equivalent)</li> </ul>
<ul style="list-style-type: none"> <li>• % of patients receiving chronic opioids with a documented opioid agreement</li> </ul>
<ul style="list-style-type: none"> <li>• % of patients receiving chronic opioids with a urine toxicology screen within past 6 months</li> </ul>
<b>3. Multimodal Care</b>
<ul style="list-style-type: none"> <li>• % of patients with chronic pain co-managed by one or more other medical disciplines</li> </ul>
<ul style="list-style-type: none"> <li>• % of patients with chronic pain referred for complementary and alternative medical modality</li> </ul>
<b>4. Patient Outcomes</b>
<ul style="list-style-type: none"> <li>• SF-8 Survey – 8-item version of SF-36 that yields an 8-dimensional health profile and scores for physical and mental components of health</li> </ul>
<ul style="list-style-type: none"> <li>• % of patients with documentation of a pain assessment through discussion with the patient, including the use of standardized tool(s) on each visit</li> </ul>
<ul style="list-style-type: none"> <li>• % of patients with documentation of follow-up when pain is present</li> </ul>
<ul style="list-style-type: none"> <li>• % of patients with documentation of pain assessment</li> </ul>
<ul style="list-style-type: none"> <li>• % of patients with documentation of pain care plan</li> </ul>
<ul style="list-style-type: none"> <li>• % of patients with documentation that the patient received pain education</li> </ul>

The evaluation was guided by a set of key questions regarding current practice gaps in care, and a set of hypotheses to test these key questions:

**Question 1:** Will a multi-faceted intervention (Maine CPC2) that includes interdisciplinary and interprofessional education; systems change for practice-based improvement; and methods to strengthen the patient voice improve the quality of care for chronic pain?

**Hypothesis 1:** Implementing the Maine CPC2 will result in improved quality of pain management by participating practice teams through:

- Increased knowledge about standards of care for chronic pain management
- Increased adherence to evidence-based protocols and guidelines for chronic pain management and safe prescribing/monitoring of opioids
- Increased utilization of multidisciplinary treatment options and improved communication with other disciplines on the care team
- Improved assessment of chronic pain and safe opiate prescribing
- Improved documentation of pain management
- Increased use of Maine Prescription Monitoring Program (PMP)
- Decreased inappropriate use of chronic opioid medications for chronic pain

**Hypothesis 2:** Implementing the QI intervention will result in improved patient outcomes for patients with chronic pain receiving care from the intervention providers as measured by patient functional status and quality of life.

**Question 2.** How effective are the Maine CPC2 Learning Collaborative offerings and Project ECHO Pain in helping primary care providers and practice teams improve their systems of care and improve their satisfaction with managing patients with chronic pain?

**Hypothesis 3:** Providers taking part in the Maine CPC2 will express greater knowledge, confidence and satisfaction with their ability to manage pain by the end of the intervention, as compared to providers in the comparison group.

**Results** (Principal findings, outcomes, discussions, conclusions, significance, implications)

Twenty-seven providers from 14 sites across the state of Maine took part in a state-wide collaborative to improve outcomes for patients with chronic pain. The intervention led to improvements in a wide range of measures including pain knowledge, self-efficacy, and adherence to documentation standards. In addition, participating providers adopted and improved adherence to core process measures for safe opioid prescribing, including review of the state prescription monitoring program and use of opioid agreements and urine toxicology assessments for their patients with chronic pain. Importantly, providers appear to have gained an appreciation for the importance of behavioral health issues in patients with pain. Rates of screening for behavioral health conditions and rates of co-management improved significantly over the course of the intervention.

Chart review of provider documentation practices related to patients with chronic pain revealed that after participation in the intervention, primary care providers were significantly more likely to document functional assessment, to provide patient education and to reassess the patient’s pain level in the follow-up analysis period than in the baseline analysis period. Primary care providers who participated in the intervention demonstrated an increase from pre- to post- in documentation of patient’s pain-related functional goals, screening for comorbid mental health diagnosis, review of prescription monitoring program, opioid agreements and urine toxicology assessments for their patients with chronic pain.

QC partnered with the Weitzman Institute to evaluate the results of this project, as well as the results of this project’s predecessor, the Maine Chronic Pain Collaborative 1. The charts below show the results of both the current MCPC2 cohort, as well as the prior for both the chart audit and the pain-related knowledge surveys.

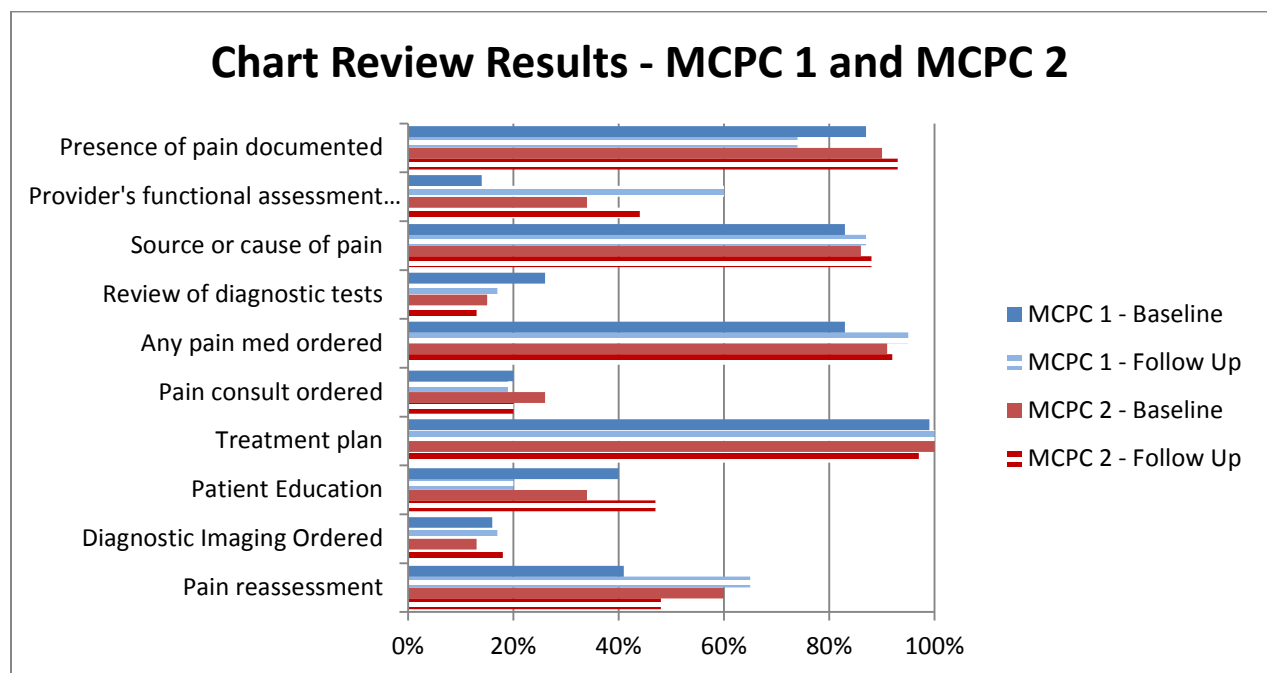


Figure 1: Chart Review Results, Weitzman Institute, Maine Chronic Pain 2 Evaluation Report, September 2016

PCPs' pain-related knowledge increased significantly between baseline and follow-up (166 pre-intervention, 173 post-intervention; max score 250,  $p < .05$ ). PCP self-efficacy to treat patients with complex chronic pain also increased significantly (87 pre-intervention, 116 post-intervention; max score 147,  $p < .01$ ). These results indicate that participation in Maine CPC2 activities instilled information and confidence in frontline clinical providers who participated.

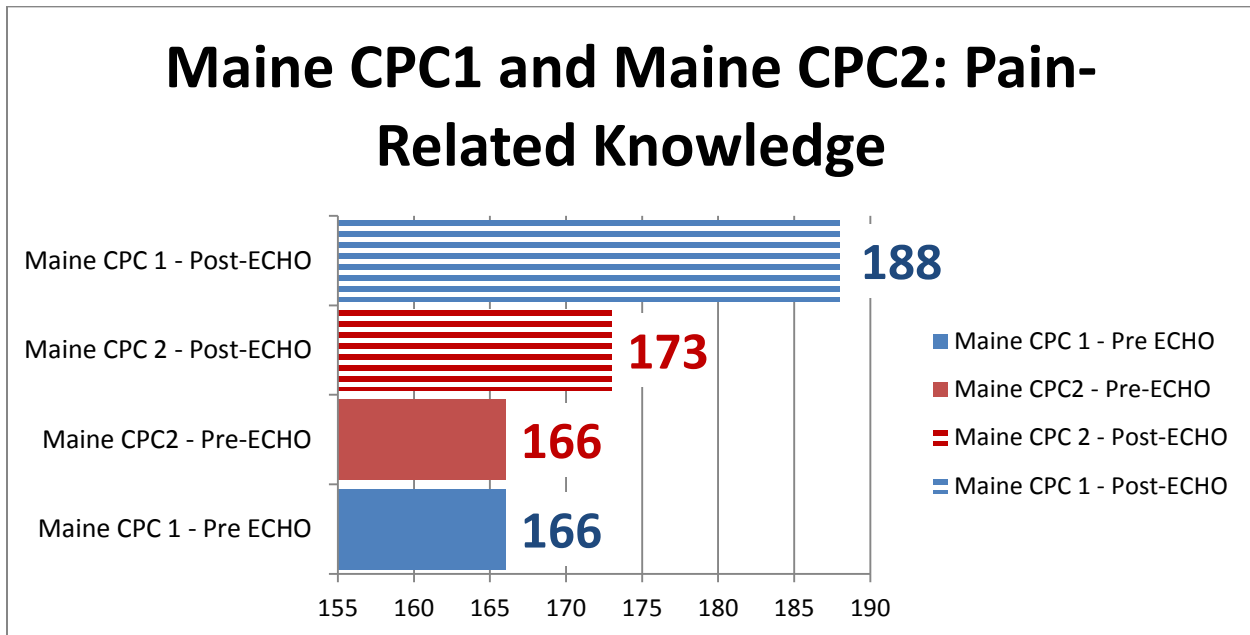


Figure 2: Participants' Pain-Related Knowledge Assessment Results, Weitzman Institute, *Maine Chronic Pain 2 Evaluation Report*, September 2016

In conclusion, the Maine Chronic Pain Collaborative is an intervention that shows promise as a tool to help the state of Maine address the challenge of chronic pain and prescription opioid misuse by providing mentoring and case-based learning to primary care providers across the state.

### Chronic Pain Collaborative 2 Participant Feedback

#### HOW DID YOUR TEAM CELEBRATE SUCCESS?

- Congrats for improved data/stats
- System recognition
- Coming together to find success
- Monthly meeting celebrating team
- Sharing stories
- Patient successes
- Empathy and support of one another
- Through a team effort, hit goals for quality metrics
- Being a fore runner
- Patients are feeling better
- Interpersonal appreciation
- Shared/acknowledged timeline
- Feeling good about patients on pain agreements and patient flow
- Chocolate
- Now that we have a plan, things are not as out of control
- Celebrate new confidence with having difficult conversations
- We're doing better, moving in the right direction in small steps
- Thank yous
- Patients are engaged
- Weaning dosage by 5 MME
- When a patient feeling is ok, we have them share this with the group
- "High five" for patient success and including patients in celebration

## **HOW DID YOUR TEAM HANDLE A HURDLE OR DIFFICULT SITUATION?**

- Utilized care teams – patients knew who they were talking to
- Universal office policy helped patients to understand that a change in treatment was “not about you” and they were not being targeted
- Resources in the office for alternative treatment and eliminating barriers
- Increased awareness of and outreach to community resources
- Consulted with colleagues within the office rather than managing treatment alone
- Joint patient visits with medical and behavioral health provider
- All in the office were on the “same page” with the “same message”
- Trusting the plan will stick
- Proactive planning for foreseeable hurdles
- Team work and communication
- Experienced personnel/manager as a resource
- Staff education
- Reach out to prescriber
- Utilizing non-physician members of the team to lead and improve patient care
- Weekly meeting to talk about “difficult patients,” common issues, different perspectives and to role play scenarios
- Joined Project ECHO Pain
- Listen, de-escalate the situation, take a time out
- More comfortable with each difficult experience
- Increased follow-up with patients to every 2 weeks
- Warm handoffs between provider/patient/behavior health
- Reflective listening skills to narrate the conversation
- Acknowledged fears/anxiety
- Utilized multidisciplinary (provider/pharmacist/addition specialties)panel to receive recommendations for treatment
- Created scripts for front line staff to deal with difficult conversations
- Involved patient relations, partnered with Risk and Patient Advocacy Department (gave these departments a “heads up” that “XYZ” patient may call and here is what happened)

## **TELL US A STORY ABOUT YOUR JOURNEY**

- Project ECHO has increased self-efficiency among residents, increased satisfaction, and increased comfort level
- Gained communication skills
- Risk assessment tools/training has helped improve care
- Joining community conversations
- Embracing the need to change has led to increased satisfaction
- Promoting change to patients
- Connections to resources including each other
- Stalled with challenging patients
- Useful model – functional assessment during nursing visit
- Worry about resources for Substance Use Disorder as it is diagnosed
- Trauma informed care with any patient and provider education
- Language
- EMR/work flow
- Cognitive Behavioral Therapy/telemedicine
- EMR/work flow improvement
- Safe prescribing as a quality metric
- Difficult conversations under time pressure
- Need to spread
- Case review meeting
- See toughest patients early
- Sharing information
- Celebrating successes
- Impact of behavioral health
- Tracking successful tapering

## **HOW DID YOU GET A PATIENT OFF “PILL ISLAND\*”**

- Used Mike Evans video, “What is the Best Advice for People On, or About to Start, Opioid Medications?” to explain/educate patients about “Pill Island”
- Asked patients, “Ten years from now, where will you be?” and goal setting
- Asked patients to “Take a leap of faith with me”
- We didn’t get patients off pill island, they did
- Helped patients understand that they’re more than just their meds
- Didn’t give patients an option – stopped prescribing opioid due to safety concerns
- Used caution in prescribing – prevented escalation
- Behavioral Health interventions
- Got staff all on the “same page”

- Helped patients to realize their motivation
- Reinforced patients' motivation
- Educated patients that emotional pain is real
- Acknowledged that the medical community was wrong about opiates and how to treat pain
- Decreased stigma around behavioral health treatment
- Used a consent form and educated patients about side effects of opioids
- Help people accountable
- Values clarification – how the medication impacts what is important to the patient
- Reframed treatment to highlight risks
- Psycho-education about lifestyle change and self-care
- Shifted attention to function
- Defined goals – specifics about what a rich and meaningful life means to them

\* “Pill Island” is a fictitious symbol to describe when patients who have been using analgesics for pain but their function is not good even when dosages are increased, when it is not clear that pain medications are working, when the patient is not engaged in self-care, when the patient has behavioral health concerns that are not addressed and/or when the patient exhibits risk behaviors (e.g., running out or losing medications).

### **WHAT WAS YOUR BIGGEST “AH-HA” MOMENT?**

- When a locums document came in with “crazy” opioid prescribing - showed us how far we’ve come
- Seeing the concept of “Pill Island” on the PowerPoint presentation
- Giving words and clarity to “nervous system dysregulation”
- Getting buy-in from the practice at Chapter 21 workflow rollout
- Identification of the role of adverse childhood experiences
- Getting data set for prescribing and identifying outliers
- PCP receiving [patient contact note] from specialist criticizing opioid weaning
- When patient agrees to taper (seeing resilience)
- Integrating behavioral health in pain management and seeing patient impact
- Initial patient roster with MMEs and watching numbers go down
- Once I saw the patient roster, I knew there was a problem to address
- Providers given roster and asked to perform their own MME calculations (empowered providers and staff to change)
- Implementation of scripting for new patients from front office staff
- Understanding it takes a team
- Shared visits with PCP and behavioral health
- Enhanced PCP insight into trauma-informed care
- Presentation on co-managing medication assisted treatment (MAT) with nurse practitioners
- Medication Assisted Treatment is “like watching a birth!”

### **HOW DO YOU PLAN TO SUSTAIN THE WORK?**

- Making “chronic pain treatment” part of workflow; hardwire process including set evaluation at the start of the process
- Educate patients about the process/treatment/goals
- Appoint one person or persons to pre-screen visits (or entire treatment population) to help organize and update
- Anyone on chronic opioids in practice has “automatic functional assessment” with nurse care manger (unbillable) and a referral to LCSW for behavioral health
- Incorporate into all levels of care and with all providers within health center regionally and create network with diverse providers.
- Tie SOP (standard operating procedure) in with quality metrics, including physician compensation
- Continue education and encouragement to provider from pain specialist

### **Webinar Survey Responses:**

**What are you going to do differently now after participating in this educational session?**

#### **May 14, 2015 – Setting Standards of Care**

- Use my function assessment tools more often
- I have broadened my approach to chronic pain patient.



- Review Rule 21 [Maine Board Licensure in Medicine (BOLM) Chapter 21 – Use of Controlled Substances or Treatment of Chronic Pain]
- Review our chronic pain policy
- Develop an Aim Statement
- Educate other providers about legal issues related to managing opioid medications
- [Engage in] team effort in the clinic with PCP

#### **June 10, 2015 – Optimizing the Role of Team Members in Managing Chronic Pain**

- Be acutely aware as to when to when to discontinue short acting opiates and prescribe a long acting opiate.
- Review [patients’] daily routines, sleep patterns and nutrition
- Use a more whole health approach to chronic pain management
- Let patients know of program we are involved in.
- Apply certain practice with patients with pain.
- Work on improving my communication skills
- Continue to offer behavioral health

#### **July 9, 2015 – Interpreting Urine Toxicology Screening in the Clinic**

- Discuss future goals with patients dealing with chronic pain
- Require patients to meet with behavioral health team
- Confirmed that we are doing well with UDS [urine drug screening]
- Will discuss using observed urine screenings
- Different ideas on pill counts and new insights into urine tox screens
- Share with providers and support staff because Alane O’Connor is correct...[providers] do not know how to interpret testing. Also Noah Nesin's scripting questions very helpful.
- Use the form for UDS asking when meds were last taken and have patient sign
- Start using screening tools more effectively, especially with UDS
- Better educate our staff
- Better understand UDS interpretation

#### **August 13, 2015 – Trauma Informed Care**

- Encourage CBT [Cognitive Behavioral Therapy]
- For childhood or adolescent trauma, administer ACE [Adverse Childhood Experiences] questions
- Make sure ACE is used
- Consider ACE screening
- It will open my eyes a bit more on questioning patients on ACE
- Continue to work with our pain patients and let them know that we can do this together. Together we can get them off these meds and onto a better quality of life.
- Present main points of TIC [trauma-informed care] to our medical providers. Incorporate the use of the ACE into work with our patients

#### **September 10, 2015 – Utilizing Functional Assessment in Chronic Pain Management**

- More functional assessment
- Functional assessment, ACES
- Improve and organize my assessments
- Share with my providers
- Design RN visit where many of the tools presented will be used

#### **October 8, 2015 – Safety First with Patients Receiving Opioid Therapy & Taper Tools**

- 'Just say no to straight oxycodone' makes perfect sense to me / seek alternates / long acting when opioids used
- Use some of the TeamSTEPPS tools

- Provide information on tapering guidelines
- Educate patients about the risk/benefit of opioid therapy
- Continue to support providers in having difficult conversations with their patients

#### **December 10, 2015 – Team Approaches to Chronic Pain Including Social Work, Behavioral Health & Integrative Medicine**

- Continue to work on using behavioral health in treatment of chronic pain
- Thinking about it.
- Thinking about coordination of care and applying it better
- Share information and resources with my providers
- In process of assessing all needs of patients with chronic pain & anticipate that will be making referrals for CBT
- More referrals for CBT pain group
- Continue to focus on an integrated approach to treating chronic pain
- Make more deliberate exploration of pain issues when meeting with clients

#### **January 14, 2016 – Expanding the Team when Caring for Patients Living with Chronic Pain**

- Speaking with CEO regarding consideration of trying to develop multidisciplinary pain group locally
- Keep thinking about collaborations. Keep thinking about the value of every therapy for a patient.
- Reaffirmed ability to manage pain without opiates
- Understand a little more about the role of individualized chemistry on side effects
- Promote development of biopsychosocial pain rehab program at EMMC
- Identify current research and local resources relative to chronic pain management.
- Will help with forming pain management group at my location

#### **February 11, 2016 – Integration of Community and Clinical Resources**

- Understanding the etiology behind the pain and if it makes sense to the situation
- Use the Diversion tool and guidance learned
- Use 200mg ibuprofen & 500mg Tylenol in combo
- Nothing in particular different but reinforces that our efforts are on the right track

#### **March 10, 2016 – Marijuana & Chronic Pain**

- Forward information to providers
- Especially speak with parents, pre-teens and teens about risks of [marijuana] in younger people
- Share information with coworkers

#### **April 14, 2016 – Working with Pregnant Mothers & Babies: An Introduction to Snuggle ME Guidelines**

- Looking at employing Snuggle ME guidelines in our practice
- Already incorporating the information but was a good review
- I know more about the CHAMP program and can share that.
- Share info with our practice
- Place resources as a smart phrase in our EHR [electronic health record]. Teach about this during precepting with family medicine residents.

#### **Lessons Learned**

- Developing scripts and providing active coaching of providers and practice teams around having difficult conversations with patients has led to practices' success in attaining patient agreement and activation participation in tapering opioid medications.
- Across the 14 CPC2 practice sites, there was a significant range in the ability of the practice to access behavioral health services, a key component in creating a

comprehensive, well-integrated approach to chronic pain management. Some practices had behavioral health counselors on site while others had to refer to outside counseling programs often with waiting lists. Rural practices expressed frustration when completing screenings or assessments with patients since behavioral health resources were not available or accessible for patients.

- Alternative approaches to pain management including integrative pain management need to be explored with patients, families and communities.
- An interdisciplinary and team based approach to care is essential. To do this, it is necessary to develop innovative ways to teach team-based care, practice it in the primary care setting and develop team-based approaches to chronic pain among community organizations and primary care practices. Dr. Stephen Hull from the Mercy Pain Center facilitated a presentation to practices on how his team developed their team-based approach to chronic pain. This model is of interest to practices. The challenge of implementing it, however, is developing in a way that is reimbursable to providers and accessible for patients both around cost and transportation due to its intensive meeting schedule for participants.
- As providers identify patients with opioid use disorders, there is very limited capacity in Maine primary care practices around medication assisted treatment (MAT). To meet the current demand in the state for treatment, a very significant expansion of services is needed. This will require a commitment on the part of practices, health systems, community, and state leaders to train providers in MAT implementation at the practice level. Practices will need to coordinate closely with community partners, addiction specialists, and behavioral health and establish workflows around referrals.

### **List of Publications and Products** (Bibliography of published works & electronic resources)