



ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing

Expansion Initiative

Spreading Practice Transformation that Achieves the Quadruple Aim in Primary Care Chronic Pain Management

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Purpose

The primary goal of this initiative is to enhance and expand the ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing program through the implementation of practice transformation strategies in primary care systems that achieve the quadruple aim, focusing on high-quality, cost-effective chronic pain management that improves patient and health care provider satisfaction. Key objectives of the program include:

- 1) Expand practice transformation resources focused on chronic pain management in primary care, including those promoting improved patient function, care coordination with specialists and community resources, and team-based care workflows;
- 2) Implement the expanded resources among the practices in Kentucky engaged in a pilot of chronic pain management quality improvement (QI) from 2014-15, measuring impact on performance measures, patient satisfaction, functional status, and quality of life as well as provider satisfaction and costs;
- 3) Train QI champions in chronic pain management in the state of Kentucky, as well as additional states, who will support the expansion of the ACP Quality Connect: Chronic Pain Program; and
- 4) Translate the practice transformation tools and plan-do-study-act (PDSA) examples into a toolkit to be made available nationwide on the ACP website.

Scope

Background

Chronic pain is a prevalent condition affecting over 100 million adults in the US.¹ Pain is a complex biopsychosocial condition, which is impacted by biological, psychological, and psychological factors. Patients living with chronic pain also have high co-occurrence of psychiatric disorders (e.g., depression and anxiety) that complicate treatment and often require the integration of behavioral health care. The American College of Physicians published a policy payer in 2014 concluding that that a key solution to the chronic pain management problem is a broader therapeutic toolkit for primary care physicians that starts with strong patient–physician relationships, care coordination, and supportive systems of care.² Thus, effective pain management strategies should be based on evidence-based, multi-modal, interprofessional and multi-disciplinary approaches that address each of the factors outlined in the biopsychosocial treatment model.¹

Chronic pain is commonly treated in primary care settings; an estimated 52% of patients with chronic pain are treated by primary care physicians compared to only 2% who are treated by pain specialists.³ The National Pain Strategy task force developed guidance, based on the Institute of Medicine’s (now National Academy of Science Education and Medicine) 2011 Relieving Pain in America: Blueprint for Transforming Prevention, Care, Education, and Research report, that notes the importance of training primary care providers in chronic pain assessment and management as well as the need for interdisciplinary care coordination.^{1,4} However, a number of barriers exist that prevent optimal care coordination for effective chronic pain management including: poor communication, fragmented care,

poor documentation, and administrative burden. These challenges result in delays in care, treatment, and diagnosis; increased costs and hospitalizations; and poor continuity of care.⁵

Opioids are powerful analgesics that are often used for the treatment of chronic pain conditions; however, opioids carry high risk for misuse and abuse. The number of opioids prescribed has increased dramatically in the past decades with the number of opioid prescriptions nearly tripling from 76 million in 1999 to 219 million in 2011.⁶ It is estimated that patients on prescription opioid therapies have a higher rate of emergency department visits, and health care costs for these patients are three times higher than that of patients who are not on opioid therapies.⁷

In March 2017, ACP published a set of policy recommendations for the prevention and treatment of substance use disorders involving illicit and prescription drugs, including opioids.⁸ Some of ACP's policy recommendations include:

- Physicians should be familiar with and follow guidelines for pain management and opioid prescribing, as well as non-opioid and non-pharmacologic treatment options
- Improvement in training of clinicians in the treatment of substance use disorders (e.g., buprenorphine treatments)
- A national prescription drug monitoring program should be established and improvements should be made to existing state programs

Program Overview and Participants

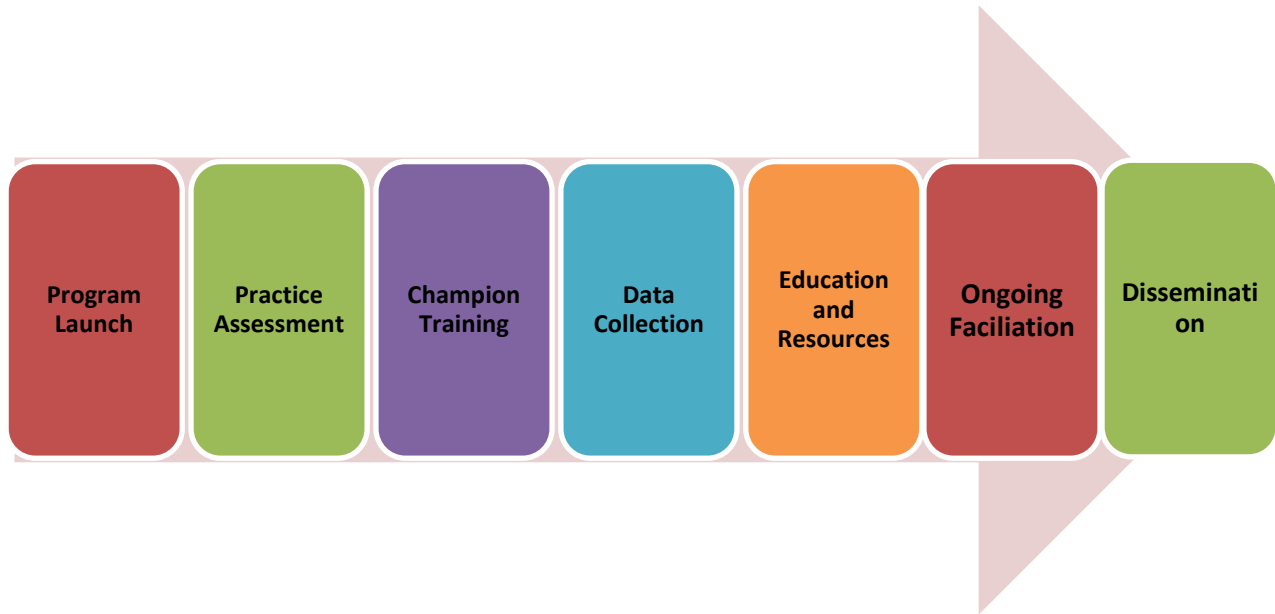
ACP developed the ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing program in an effort to apply QI strategies to improve the safe and effective management of chronic pain in primary care. This program builds on an initial program that was piloted in Kentucky from 2014-15, in which ACP worked with eight practices to help them improve chronic non-cancer pain management. The pilot program resulted in significant practice improvement, the results of which were published in the American Journal of Medical Quality. The published manuscript was entitled, "Enhancing the Safe and Effective Management of Chronic Pain in Accountable Care Organization Primary Care Practices in Kentucky."⁹ The pilot initiative showed significant improvement in the assessment of pain and implementation of risk management strategies, including mental health screenings, pain assessments, and use of controlled substance agreements to promote the safe and effective management of chronic pain in the primary care setting. The funding from Pfizer, as well as additional funding received from Teva, was used to continue this work, expanding the initiative to larger practice groups and health systems in Kentucky and additional states, as well as adding a focus on care coordination and team-based care.

ACP worked with a number of partners on this initiative including four state chapters (Kentucky, Illinois, Northern, Minnesota, and New Jersey), the Quality Independent Physicians Accountable Care Organization in Kentucky, and Johns Hopkins University. ACP engaged 35 champions from 21 different practice settings across six states. A total of over 450 clinicians were involved in the initiative in some capacity.

Methods

The ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing program was based on ACP’s foundational approach to QI, which is summarized in Figure 1 below.

Figure 1: ACP Quality Connect QI Framework



Program Launch:

ACP’s launch of the ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing program included convening an advisory group of experts, recruitment of state chapter partners, and identifying QI champions. ACP assembled an advisory group of national experts who met in January 2016 in Louisville, KY to provide guidance on the implementation of the ACP Quality Connect: Chronic Pain program. Experts included national pain, behavioral health, QI, and evaluation experts, as well as regional QI champions from the original pilot initiative. The following table lists the national expert advisory group members.

Table 1: National Experts on Advisory Group

Advisory Group Member	Title and Affiliation
Gregory Hood, MD, MACP	Chair, Primary Investigator Medical Director, Quality Independent Physicians/The Physicians’ Network
Matthew J. Bair, MD, MS	Core Investigator and Associate Professor of Medicine VA HSR&D Center for Health Information and Communication, Regenstrief Institute, Inc
Phillip F. Bressoud, MD, FACP	Governor, KY ACP Chapter; Executive Director and Associate Professor of Medicine, ULP Physician Champion Electronic Medical Record, Campus Health Services, University of Louisville
Yea-Jen Hsu, PhD	Senior Research Assistant, Johns Hopkins Bloomberg School of Public Health

Robert Kerns, PhD	Director, VA Pain Research, Informatics, Medical Comorbidities and Education Center
Jill Marsteller, PhD, MPP	Associate Professor, Johns Hopkins Bloomberg School of Public Health; Associate Director for Quality, CHSOR
Doron Schneider, MD, FACP	Assistant Professor of Medicine, Drexel University; Department of Medicine, Abington Hospital, Jefferson Health, Abington, PA
Paula Straub, RPh	Pharmacy Director, The Physicians' Network/Precision Healthcare Delivery
Peter Wright, MD	Medical Director, The Pain Treatment Center of the Bluegrass

State Chapter and QI Champion Recruitment

The ACP Quality Connect approach involves engagement of QI champions, who serve as leaders of the QI initiative at their practice setting. Champions can be either physician or non-physician leaders from the practice. Champions were offered an honorarium to participate in the program for 18 months and were required to attend champion training and education programs, participate in coaching calls, and provide performance and evaluation data.

At the launch of this program, ACP worked with the KY ACP governor, Dr. Phillip Bressoud, and regional project manager, Ms. Paula Straub, to recruit champions from the state of Kentucky. Champions identified in Kentucky included a physician and non-physician champion from seven of the practices that participated in the pilot initiative (14 total), as well as two physician champions from a large internal medicine residency training program, and one physician champion from a solo private practice.

ACP received additional funding from Teva that allowed us to expand the initiative to additional states beyond Kentucky. In order to recruit additional state partners, national ACP developed a Request for Proposal (RFP) that was disseminated to all ACP chapter leaders, including governors and executive directors. The RFP requested for chapters interested in participating in the initiative to submit a 1-2 page proposal outlining the need for chronic pain and safe opioid management support, identifying their ability to recruit QI champions, and disseminate information and education relevant to the program. Three ACP state chapters were selected to participate as a result of the RFP process, including Minnesota, New Jersey, and Illinois Northern. Each state recruited up to four champions from different practice settings and health systems. Additionally, champions from New York and California were recruited and trained as part of this initiative.

A total of 35 champions were recruited for this initiative; a summary of recruited QI champions is listed in Table 2.

Table 2: Summary of Recruited QI Champions

State	# of Champions	Practice Setting	Project Focus
KY	2	100 residents and fellows	EHR-based template based on 5As

	14*	7 small-to-med private practices	Pain care plans and care coordination
	1	Small private practice	<ul style="list-style-type: none"> • Pain assessments • Controlled substance agreements and patient education
NY	3	63 clinicians (residents and faculty)	<ul style="list-style-type: none"> • Revised pain agreement • Use of EHR-based pain template
IL	1	45 attendings and 45 residents	<ul style="list-style-type: none"> • Pain management kits: (risk assessment, education, opioid agreement forms, and functional assessment)
	1	Solo, private practice Faculty at IM residency training program	<ul style="list-style-type: none"> • Risk assessments • Opioid agreement forms
	1	3 physician private practice	<ul style="list-style-type: none"> • Tracking patients on long-term opioid treatments • Reduction of opioid prescribing
	1	Multispecialty group with 5 primary care providers	<ul style="list-style-type: none"> • Controlled substance agreements • Physician education
NJ	1**	6 locations; 35 providers	<ul style="list-style-type: none"> • Opioid agreements • Depression screens
	1	3 providers	
	1**	FM center; ~20 providers	
	1**	3 providers	
	2	N/A (project managers from NJ ACP)	
MN	2	100+ providers	<ul style="list-style-type: none"> • Increase MN Prescription Monitoring Program (PMP) enrollment and participation among hospitalists; • Improving physician communications regarding patient pain management
	2	100+ providers	
CA	1	100+ providers	Safe reduction of chronic high dose opioid and benzodiazepine prescribing

*Champions from Phase 1 initiative; received QI training in the prior year (2015-16)

** Champions were recruited after champion training program; received regional education from NJ state chapter program managers

Practice Assessment:

ACP developed a practice assessment tool designed to understand practice background, QI experience and capacity, and current chronic pain management strategies. The assessment tool was developed

based on conducting a literature review of current assessment surveys and chronic pain management guidelines.^{10,11,12} The practice assessment is designed to identify QI and educational priorities of the QI champions as well as identify gaps in current chronic pain management and opioid prescribing practices. Data from the practice assessment are used by ACP to develop tailored education, interventions, and resources designed to meet the specific needs of participating practices. The practice assessment survey is updated on an annual basis by ACP staff and reviewed by members of the advisory group; the 2017 version of survey is available online: <https://www.surveymonkey.com/r/QualityConnect2017>.

QI Champion Training

ACP trained 19 chronic pain QI champions from six different states for this initiative (14 champions from Kentucky were trained previously through their participation in the pilot initiative; 2 champions from New Jersey were recruited after the champion training program and received their training from the NJ ACP regional project managers). The QI champion training was held in May 2016 in Washington, DC as pre-course during the 2016 ACP Internal Medicine Meeting. A total of 100 champions were trained during the pre-course session across several different clinical focus areas, including adult immunization, diabetes, and chronic pain and safe opioid prescribing. The champion training program included a mixture of didactic lectures on QI methodology and practice transformation strategies, as well as interactive breakout sessions where champions from each clinical focus area were able to develop their own QI action plans. The breakout sessions were designed to support peer-to-peer learning as champions developed action plans along with their peers and under the guidance of expert faculty. The breakout session for the chronic pain champions was led by Dr. Greg Hood, who served as the primary investigator for this initiative.

Data Collection and Measures

Practice assessment data was collected from all 35 champions via an online survey. In addition to practice assessment data, champions were asked to provide performance metric data pre- and post-intervention. The data were used to evaluate whether or not the intervention had an impact on their chronic pain management and opioid prescribing practices. Allowing champions the flexibility to select their own focus area for the QI programs is core to the ACP Quality Connect approach. As a result, a required core set of performance measures was not identified for all participants. Additionally, no single data collection tool was used as most champions and practices were able to develop their own EHR-generated performance reports. The decision to not require use of a single data collection tool was in line with the initiative's aim to reducing burnout and administrative burden. However, ACP did develop a sample data collection sheet, which was provided as a resource to champions who did not have their own reporting capabilities. The data collection form included the following measures and metrics:

1. *Pain Assessment*: Patient has documentation of a pain assessment completed at initial visit using a standardized tool that addresses pain intensity, location, pattern, mechanism of pain, current functional status and follow-up plan in the medical record.
2. *Depression Screen*: Patient has documentation of screening for clinical depression using an age appropriate standardized tool AND follow-up plan is documented in the medical record.

3. *Controlled Substance Agreement:* Patient, age 18 years and older diagnosed with chronic pain and are prescribed an opioid, has documentation an opioid agreement form in the medical record.
4. *Urine Drug Test:* Patient, age 18 years and older diagnosed with chronic pain and are prescribed an opioid, has urine toxicology screen documented in the medical record."
5. *Risk Assessment:* Patient has documentation of evaluation for risk of misuse of opiates by using a brief validated instrument (e.g., Opioid Risk Tool, SOAAPR) or patient interview at least once during opioid therapy.
6. *Functional Assessment:* Patient has documentation of assessment of functional ability using an age appropriate standardized tool AND follow-up plan is documented in the medical record.
7. *Care Plan:* Patient has documentation of a care plan for chronic pain management that includes functional and pain level goal setting, stress management techniques, and timeline for improvement
8. *Quality of Life Assessment:* Patient has documentation of quality of life assessment in the medical record.
9. *Documentation of Referrals to Specialists and Other Care Providers:* Patient has documentation of referral to a specialist or other care provider with the clinical reason for the referral, pertinent clinical information, and required timing in the medical record.
10. *Documentation Referral Status and Follow-up:* Patient has the status of referrals, including required timing for receiving a specialist's report for follow up of overdue reports documented in the medical record.

Additionally, champions were provided the option of entering their data on the ACP Practice Advisor Chronic Pain Management module, which has a built in survey that calculates three performance measures:

1. *Screening for Clinical Depression:* Documentation of screening for clinical depression and follow up plan in adult patients
2. *Assessment and management of chronic pain:* Percentage of chronic pain patients with documentation of pain assessment completed at initial visit using a standardized tool that addresses pain intensity, location, pattern, current functional status, and follow-up plan
3. *Increase use of opioid agreement forms and urine toxicology tests:* Percentage of chronic pain patients who are prescribed an opioid who have an opioid agreement form and urine toxicology screen documented in the medical records

The majority of champions elected to submit self-generated data reports, with the exception of champions from the Phase 1 initiative who all elected to use the data collection tool provided by ACP.

Education and Resources

Following the initial champion training, ACP and state chapter partners provided a number of education resources to champions. These resources included live education programs via state chapter annual

scientific sessions, web-based programs, and enduring educational materials made available online on ACP's website.

Kentucky

The Kentucky ACP chapter held a two-hour session on pain management and the biopsychosocial model as part of their 2016 scientific session on October 5, 2016. The program featured Dr. Greg Hood, who gave a clinical update on pain management and safe opioid prescribing, and Dr. Robert Kerns, who provided an overview of the application of the biopsychosocial model in chronic pain management.

The Kentucky ACP chapter will also plan a session on pain management and safe opioid prescribing in 2018 to support continued engagement of KY physicians.

Illinois-Northern

The ACP Illinois-Northern chapter will host a session on chronic pain management as part of their 2017 annual scientific session, which is scheduled for November 17-18, 2017. The session will feature two physician champions who participated in the initiative.

Minnesota

The Minnesota ACP chapter hosted a four-hour session on pain management on Oct. 27, 2016, in conjunction with their annual scientific session. The session included a presentation of evaluation data and information about the MN Pain Management Program (PMP) registration, which was the focus area of the Minnesota champions' QI project. A total of 56 physicians and advance practice RNs attended. A recording of this session is available online:

<https://www.youtube.com/watch?v=OzMeDHD5N2A&feature=youtu.be>. The link to this video was disseminated via an all member newsletter that was circulated to 2,500 internists in Minnesota.

Additionally, a 30 minute training session on pain management was held on Oct. 28, 2016, in conjunction with the state chapter's annual scientific session. A total of 77 physicians and advanced practice RNs attended this session.

New Jersey

The New Jersey ACP chapter hosted two open door webinars on September 23, 2016 and November 11, 2016 with enrolled providers for Q&A and resource dissemination. Presented by Dr. George DiFerdinando, Jr, principal investigator for the NJ program and program champion Ritu Suri, MD, these webinars focused on:

- Collecting baseline and follow-up data on two identified measures and one additional measure chosen by the practice
- Creating and evaluating PDSAs
- Implementing patient screenings and opioid agreements in practice

- Sharing information on ACP’s National QI Coaching Calls, patient education tools, controlled substances education brochure, links to chronic pain QI videos and information on accessing the ACP Practice Advisor

A CME article entitled, “Chronic Pain Management: A Doctor’s Perspective,” authored by principal investigator Dr. DiFerdinando, was published in Volume 16, Issue 1 2017 of PERSPECTIVES: A View of Family Medicine in New Jersey, NJAFP’s quarterly print and online journal. The article can be [accessed online](#).

Web-based Education

In addition to the live educational programs, ACP hosted a CME-certified webinar featuring Dr. Dan Alford, MD, MPH, Director, CARE Unite; Associate Professor of Medicine, Boston University School of Medicine; Assistant Dean, Boston University School of Medicine Office of Continuing Medical Education; Medical Director, Office-Based Opioid Treatment (OBOT), Boston Medical Center. Dr. Alford’s webinar, entitled, “Chronic Pain & Opioid Addiction: Clinical Challenges and Management Strategies,” was held in October 2016. A recording of this webinar is available on the [ACP website](#).

Online Practice Transformation Toolkit: Education and Resources

ACP has developed a toolkit of resources designed to help practices implement QI programs aimed at improving chronic pain management and safe opioid prescribing practices. The toolkit includes general QI resources as well as educational resources to support improved chronic pain management. These resources are available on the [ACP website](#).

Table 3: ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing Toolkit

Toolkit Component	Details and Links
Quality Improvement Resources	<p>Plan-Do-Study-Act (PDSA) overview and tips Webinar recording on the Basics of Quality Improvement, led by national faculty expert, Dr. Doron Schneider PDSA worksheet that provides guidance on how to develop a PDSA Examples of QI projects for improving chronic pain management developed by QI champions Practices assessment survey</p>
Educational Webinars	<p>Chronic Pain & Opioid Addiction: Clinical Challenges and Management Strategies — Daniel P. Alford, MD, MPH, FACP Learn about factors that influence the experience of pain in patients with a history of opioid addiction; recall the complexities of diagnosing opioid addiction in patients on chronic opioids for chronic pain; recall the evidence supporting the management of opioid use disorders with medications; apply a practical framework for managing patients with concurrent pain and opioid addiction. Pain and Mental Health Assessments in Primary Care — Matthew Bair, MD, MS Learn about factors related to a comprehensive pain assessment and some</p>

	<p>common screening tools helpful in assessing pain.</p> <p>Pain Contracts and Risk Assessments — Dr. Gregory Hood, MD, FACP, PI, Kentucky ACP Pain QI Study</p> <p>Dr. Hood explains pain contracts as legal and medical tools that facilitate patient treatment that is safe and effective—both medically and legally. In addition, he takes a look at ways to make risk assessments straightforward and useful.</p>
QI Videos	<p>Five to 10 minute videos that provide education on various pain management topics, followed by example of PDSAs that can be applied in practice.</p> <p>Pain and Mental Health Assessments — Matthew Bair, MD, MS</p> <p>Minimizing Risk of Abuse — Gregory Hood, MD, FACP</p> <p>Controlled Substance Agreements — Gregory Hood, MD, FACP</p>
ACP Practice Advisor	<p>ACP's Practice Advisor is an online practice management tool that is based on the patient-centered medical home model. A number of modules are available on the practice advisor that are relevant to this initiative including:</p> <p>Chronic Pain Management (20 ABIM Maintenance of Certification points can be earned through this module)</p> <p>Opioid Risk Management</p> <p>Care Coordination</p> <p>Addressing Substance Use</p>
External Resources	<p>Providers' Clinical Support System for Opioid Therapies</p> <p>ACP collaborated with 12 other consortium partners to create and deliver resources to educate providers on practice-based approaches to improving chronic pain management and discussing tactics for implementing the best practices.</p> <p>http://turnthetidex.org/</p> <p>The website includes tools for providers and asks health care professionals to take a pledge to educate themselves on pain management, screen patients for opioid use disorders, and treat addiction as a chronic illness.</p>

Ongoing Facilitation

Another key component to the ACP Quality Connect approach is to have ongoing engagement of the champions through biweekly coaching calls with national expert faculty and periodic check in calls with ACP staff. ACP offers a biweekly coaching call series featuring national experts in QI. These coaching calls are open to the public and designed to provide clinicians with an opportunity to gain guidance and input from national experts on the implementation of their QI projects. The coaching calls also provide an opportunity for peer-to-peer learning as champions frequently engage with other participants on the call to help address barriers to implementation. Champions are required to attend at least two coaching

calls during the course of the initiative; champions are encouraged to invite other members of their practice team to join the calls as well.

ACP staff and regional project managers conduct periodic check-in calls with champions to ensure that the project is being implemented according to schedule. ACP staff and regional project managers help facilitate data collection, provide links to various resources, and help champions ensure that they are on track to complete their projects on time. The Kentucky regional project manager also conducted site visits with the phase 1 practices.

Dissemination

The final component of the ACP Quality Connect framework is dissemination, which includes publication in ACP and peer-reviewed publications as well as presentations at national and regional conferences. The goal of dissemination is to spread best practices and promote sustainability and scalability of the initiatives. Results from the pilot ACP Quality Connect: Chronic Pain initiative were disseminated through the following channels:

- Manuscript published in the American Journal of Medical Quality
- Dr. Greg Hood was interviewed for the “Success Stories” feature of the ACP Internist in November 2015 (<https://acpinternist.org/archives/2015/11/success.htm>)
- Dr. Hood presented results of the pilot program to the Kentucky Board of Medical Licensure
- Results from the program were presented by Ms. Wubu as part of a Storyboard Walk around session entitled, “Patient, Team, System, Payer: The Quality Pillars,” at the 28th Annual National Forum of the Institute for Healthcare Improvement in December 2016

ACP is in the early stages of dissemination for the expanded initiative. Champions from KY and New York were recognized during the fourth annual Quality Connect awards reception and luncheon at the 2016 ACP internal Medicine Meeting in San Diego, CA. ACP will be engaging with the champions from the NY and KY internal medicine residency programs and Johns Hopkins University to collaborate on the development of manuscripts for peer-reviewed publication over the next several months. Additionally, ACP will convene with members of the advisory group to develop a dissemination strategy for the broader initiative.

Limitations

There were several limitations with this study design. Champions were recruited from very diverse practice settings and each had different barriers to program implementation. For example, in California, the champion has been working on gaining IRB approval for over a year. ACP has been working with the champion to navigate the IRB process; however, the program has been significantly delayed as a result of internal approval processes. Data collection has also presented a significant challenge. Champions from Illinois had difficulty working with their IT staff to pull reports for their projects. Challenges included HIPAA concerns from the institution, particularly with sensitive information around opioid prescribing practices, as well as technological limitations in generating reports. A complaint we

frequently heard from champions was that their IT departments were inundated with requests for data reports for various quality initiatives, which caused significant delays.

Lack of continuity across the data sources is an inherent limitation with the ACP Quality Connect approach. Because each champion and practice was given the flexibility to select their own performance metrics that were relevant to their QI project focus, there was great variability in the type of data collected. Additionally, no single data collection tool was used, which was a strategic decision on ACP's part to prioritize reducing the burden of data collection for program participants. As a result, data for this program is separated out by practice setting, rather than having data continuity for all program participants.

Results

Principal Findings

The ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing expansion program resulted in significant increases across various performance metrics. Each practice/system that participated in the program was given the flexibility to choose the focus area for their QI program and provide self-generated data reports on performance metrics relevant to the focus of their QI project. Individual results from these practices are summarized below. It is important to note that some practices are still implementing their programs and were not able to provide follow-up data in time for this report. Additionally, five out of the 35 recruited champions did not complete the program and two of the champions were trained as QI project managers but are not in clinical practice, so they also did not submit data.

Kentucky Phase 1 Practices

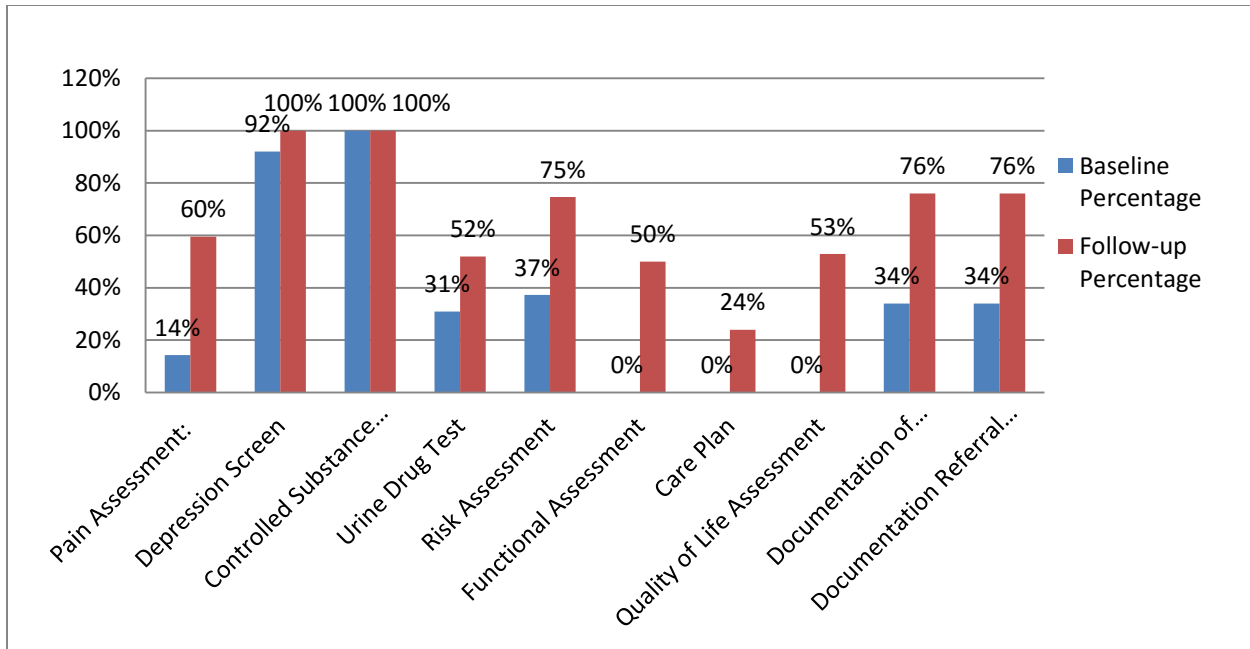
Ten champions from five out of the seven practices recruited from the Kentucky pilot (Phase 1) initiative completed the expansion QI program. Two champions from one practice dropped out of the initiative due to lack of time and other competing priorities. Two champions from another practice are still engaged in the initiative but were not able to collect their follow-up data in time for this report.

Phase 1 practices focused their QI activities on several different areas for their interventions including:

- Pain assessments
- Depression screening
- Controlled substance agreements
- Urine drug tests
- Risk assessments
- Functional assessments
- Pain care plans
- Quality of life assessments
- Documentation of referrals to specialists
- Documentation of referral status and follow-up

Results from the Phase 1 practices are summarized in the chart below.

Figure 2: Kentucky Phase 1 Practice Results*



*Each practice submitted data on a random sampling of 25 patients pre- and post-intervention. Practices were not required to submit data for all of the performance metrics listed in the chart above.

The largest increases were in use of quality of life assessments (average increase of 53%), use of functional assessments (average increase of 50%), use of pain assessments (average increase of 46%), and documentation of referral to specialists as well as follow up (average increase of 42%). Large increases were also seen in use risk assessments (average increase of 38%), use of pain care plans (average increase of 24%), and use of urine drug tests (average increase of 21%). The smallest changes were seen for use of depression screens, which was at 92% at baseline and increased to 100% at follow-up, as well as use of controlled substance agreements, which was at 100% at baseline and maintained through follow-up.

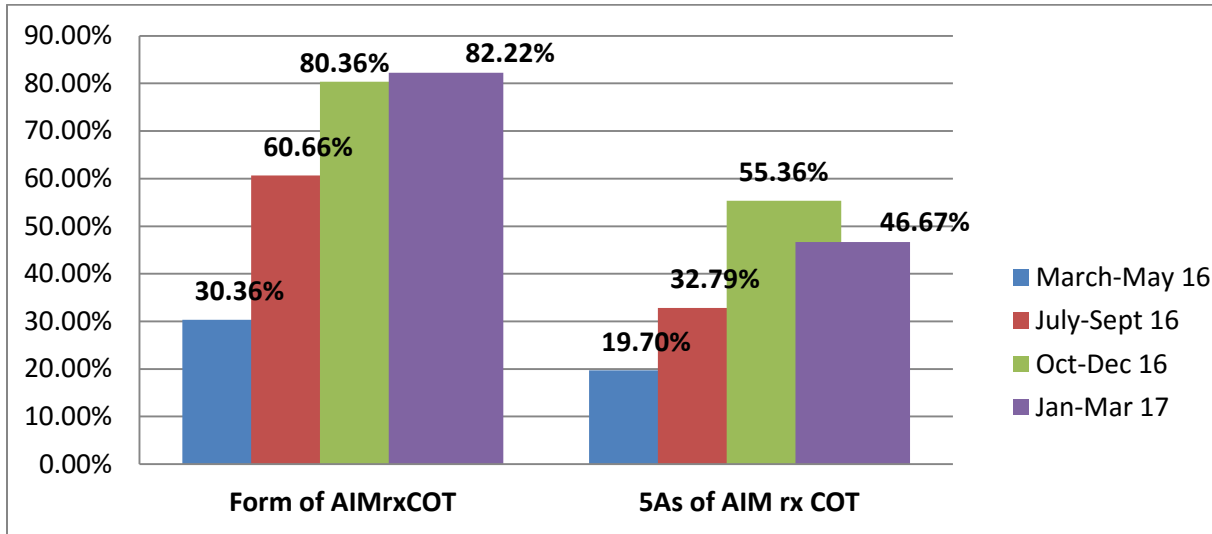
Kentucky Internal Medicine Residency Training Program

ACP recruited a large internal medicine residency program from an academic medical center in Kentucky to participate in this initiative. Two physician leaders from the program served as QI champions and were trained at ACP’s QI champion training pre-course during the 2016 ACP Internal Medicine Meeting in Washington, DC. Prior to participating in the initiative, one of the champions worked to develop an EHR-based system to document the “5As” of pain management, which involved a determination of whether the patient is experiencing a reduction in pain (Analgesia), has demonstrated an improvement in level of function (Activity), whether there are significant Adverse effects, whether there is evidence of Aberrant substance-related behaviors, and mood of the individual (Affect). The goal of their QI program was to increase uptake and use of the EHR-based intervention, specifically focusing on documentation of the “5As.”

The program engaged the medical assistants, who began placing electronic flags on the charts of patients they identified as being on chronic opioid therapy during the triage process. After a few

months, the MAs began flagging patient charts during the pre-visit planning process. The QI program also included efforts to train residents to more effectively communicate with patients regarding opioid prescribing. The champions led a workshop in September 2016 to teach residents effective techniques for having difficult conversations with patients about their opioid prescriptions; the workshop included role playing exercises. Results from their program are summarized in the chart below.

Figure 3: KY Internal Medicine Residency Program Results



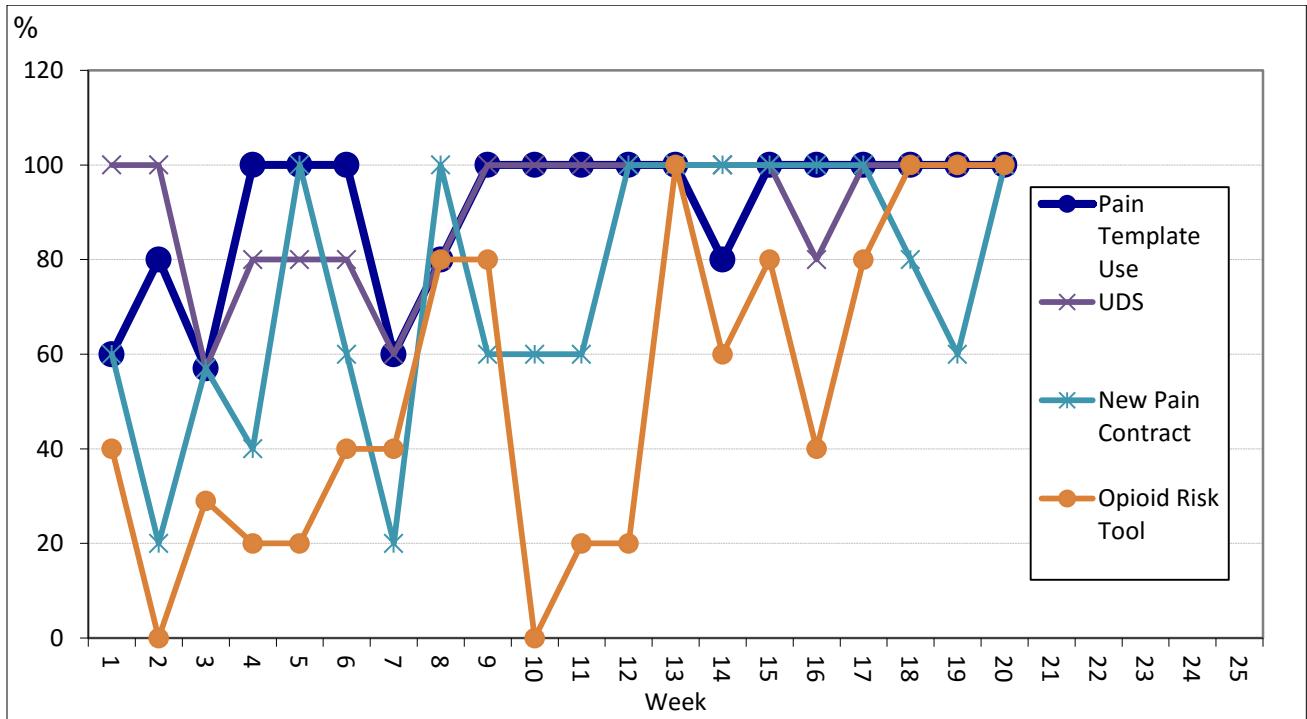
The left side of the chart shows the increase of documented pain assessments for patients on chronic opioid therapy, which increased from 30.36% at baseline to 82.22% at follow-up. The right side of the chart shows the documentation of the "5As" for patients on chronic opioid therapy, which increased from 19.70% at baseline to 46.67% at follow-up. It should be noted that the rate of documentation peaked at 55.36% in the third quarter, which aligns with the timing of the resident workshop (September 2016). The program, however, did see a drop off the following quarter. ACP plans to work with the champions and our evaluation partners at Johns Hopkins University to conduct a qualitative study to better understand barriers to consistent improvement.

New York Internal Medicine Residency Training Program

Three champions including a physician, resident, and nurse, were trained by ACP as part of this initiative. The champions developed an electronic template for patient visits related to chronic pain management. The template included documentation/characterization of patients' pain, pain treatment history, urine drug test, opioid use agreement, opioid risk assessment, and prescription drug monitoring program. One of the challenges faced by this program was lack patient visit continuity with providers because residents practicing in the clinic rotate on a five week schedule. In an effort to mitigate this challenge, the champions had risk stratification tools that were embedded to help schedule patient visits based on their risk level. Patients at higher risk for abuse were seen at five week intervals to ensure that they could see the same provider, while patients at lower risk for abuse were seen at 15 week intervals. The system also updated the opioid agreement forms to emphasize the potential adverse effects and

dangers of the use of chronic opiates or anti-depressant medications. Results from the NY IM residency training program are summarized in the chart below.

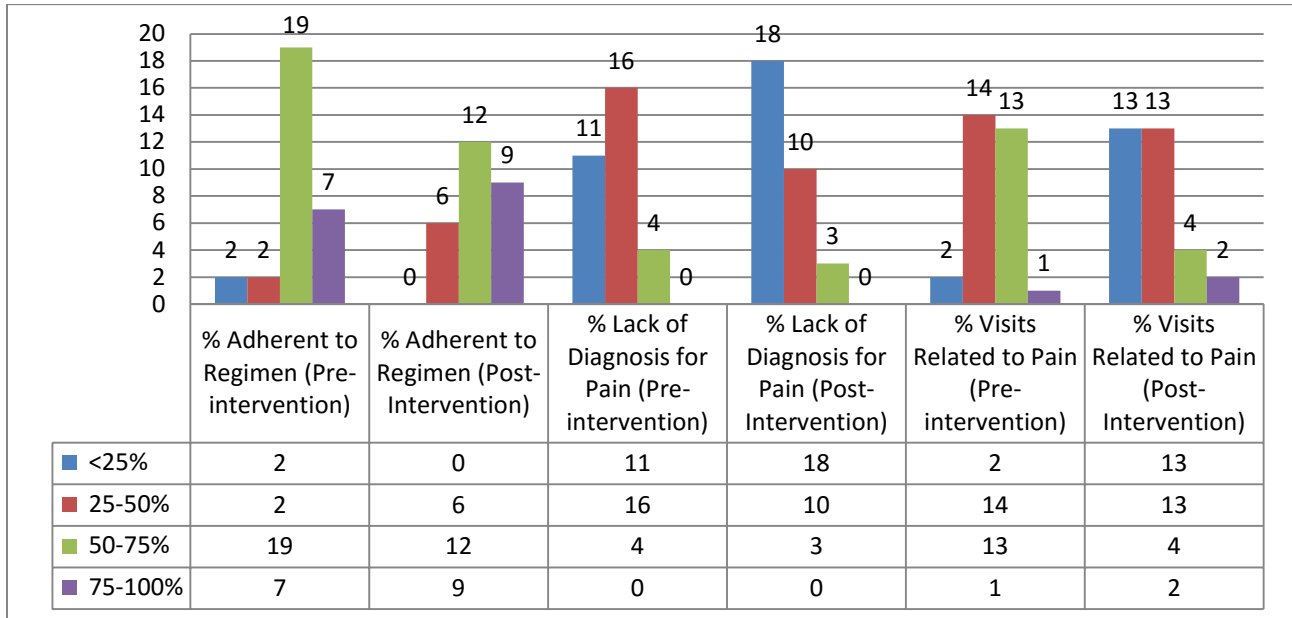
Figure 4: NY Internal Medicine Residency Training Program Results



Although there are fluctuations in performance over time, there is a clear trend toward increased use of the electronic pain templates, administration of urine drug screens, and use of the opioid risk tool and the update controlled substance agreements. At the start of the initiative, pain templates and new controlled substance agreements were being used on 60% of patients with chronic pain and the opioid risk tool was being used on 40% of patients. By week 20, all four metrics had achieved 100% adherence. More data needs to be collected over time to see if these levels can be sustained.

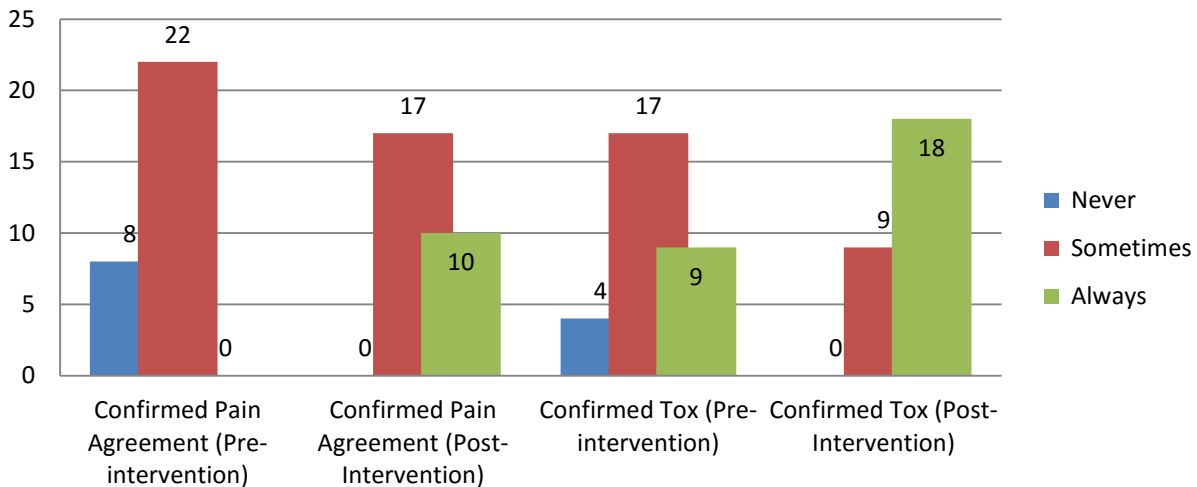
The NY champions also administered a survey to their residents assessing knowledge, attitudes, and behaviors towards chronic pain management pre- and post-intervention. The results of this survey are summarized in Figures 5 and 6 below.

Figure 5: Resident Survey Data - Average % of Adherent Patients, Diagnosis, and Visits



Residents were asked to self-report the percentage of patients they believe to be adherent to their pain treatment regimen, percentage of patients who lack a pain diagnosis in their chart, and the percentage of patient visits related to chronic pain management. The chart above shows that prior to the intervention, residents self-reported a lower percentage of patients who were adherent to the treatment regimen; a higher percentage of patients who lack a diagnosis for pain; and a higher percentage of visits related to pain management. Reduction in visits related to pain management resulted from practice workflow redesign efforts to schedule patients at 5 or 15-week intervals (based on assessed risk), which increase care continuity and reduced the number of visits. Reducing the number of overall visits for patients with pain translates to reduced costs on the health care system.

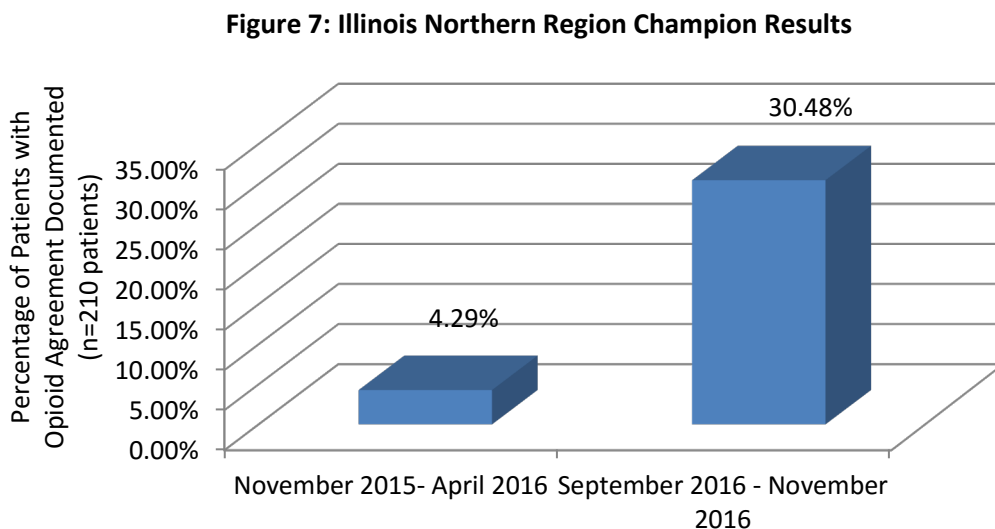
Figure 6: Resident Survey Data – Chronic Pain Management Behaviors



Residents were also asked to self-report how often they confirm that the patient has a documented controlled substance agreement and toxicology assessment in their medical record. The percentage of residents who reported that they “always” confirm the patient has had an annual toxicology increased from 30% at baseline to 56% at follow up. Additionally, the percentage of residents who reported that they “always” confirm that a signed pain agreement is documented in the patient’s record increased from 0% at baseline to 30% at follow-up.

Illinois-Northern Champion

A champion from the Illinois-Northern region was recruited and trained by ACP in 2016. The champion is affiliated with a large hospital system in the Illinois region as well as a network of outpatient clinics. The champion focused his QI activities in the outpatient setting; the goal of the QI project was to increase use of opioid agreement forms. The champion worked with his IT department to develop list of patients on chronic opioid therapy (3 months or more) to assess their baseline performance. The champion was able to increase the percentage of patients with an opioid agreement form documented from 4% at baseline to over 30% at follow up (summarized in the chart below).



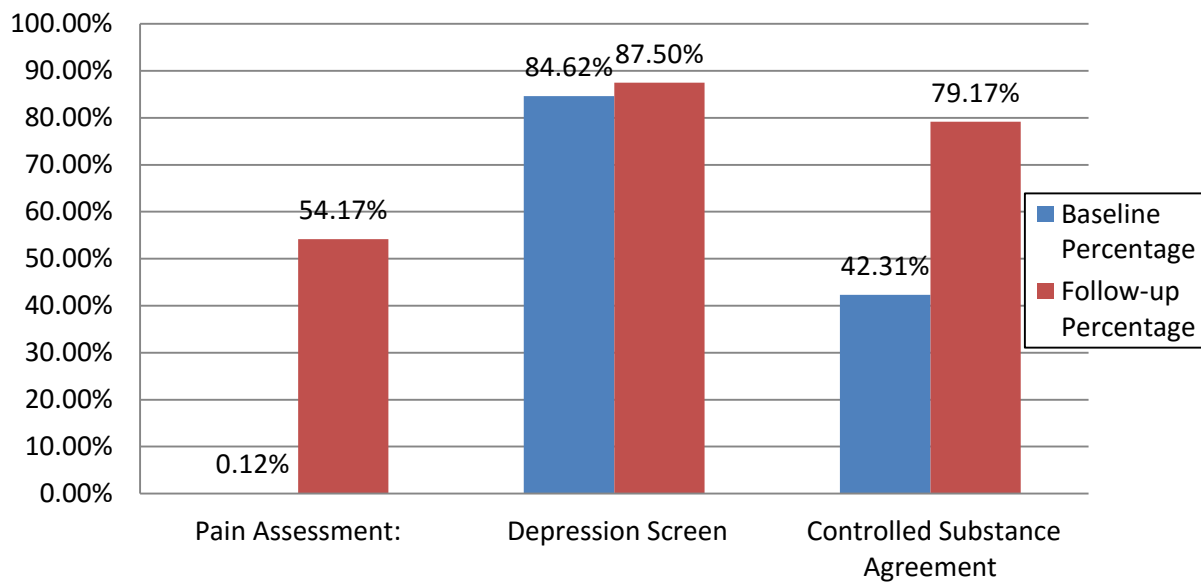
Barriers to the implementation plan included difficulty accessing the data from the EHR. The champion and his nurse spent several hours manually pulling charts after they were unable to generate automated reports via the EHR. Despite these barriers, the champion was able to realize significant increases in use of opioid agreement forms in the outpatient clinics. The champion is now working to implement a system change at the large integrated health system with which he is affiliated.

New Jersey Champion

One of the New Jersey champions submitted their performance data in time for this report. The champion was trained by the NJ ACP project managers and had access regional educational resources

offered by the NJ ACP chapter. The champion collected data across three performance measures including: pain assessment, depression screen, and controlled substance agreement.

Figure 8: New Jersey Champion Results



The largest improvements were seen in use of pain assessments and controlled substance agreements, which increased 54% and 37%, respectively. Use of depression screens increased by nearly 3%, however, performance for this measure was relatively high at baseline (85%) and had less room for improvement.

Discussion

Although this initiative is ongoing in some of the expansion states, data that have been collected thus far clearly indicate that the ACP Quality Connect approach effectively increased chronic pain management best practices including assessment of pain, function, quality of life, depression, and risk, use of controlled substance agreements. Data collected from the Phase 1 practices showed improved care coordination practices, including increased documentation and follow-up when making referrals to specialists. Key takeaways from the ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing expansion program include the importance of employing a team-based approach to practice transformation and QI; the effectiveness of providing opportunities for peer-to-peer learning; as well as the importance developing tailored interventions based on individual practice gaps.

Team-based approaches were effectively used in the implementation of QI activities. The majority of champions employed team-based approaches when implementing their QI programs; champions engaged non-physician leaders, including nurses, medical assistants, and office administrators, to lead QI efforts. In the Kentucky IM residency training program, the medical assistants were the ones to suggest that they start flagging patient charts during the pre-visit planning process. This helped streamline the process of identifying patients with chronic pain who needed their “5As” documented in the medical record. The medical assistants were actively engaged and felt greater responsibility and ownership over the activity. This system also reduced the burden on the physician and residents who

were implementing the QI program. Taking a team-based approach is a suggested best practice for reducing burnout, and increasing professional satisfaction and joy in primary care practice.¹³

The QI champion training program and biweekly coaching calls provided opportunities for champions to engage in peer-to-peer learning opportunities. Chronic pain QI champions were grouped together during the QI champion training breakout sessions in order to provide them with an opportunity brainstorm and collaborate with each other to develop action plans. During the coaching calls, champions would offer suggestions to each other to help problem solve challenges they encountered. Many champions exchanged contact information and began contacting each other offline to share resources.

Tailored, guided interventions are core to the ACP Quality Connect approach. The practice assessment survey provides critical information to ACP as we planned educational programs and developed resources for the champions. Results from the pilot initiative that champions realize greater improvement when their QI project is aligned with the QI priorities identified in the practice assessment survey.⁹

Sustainability and Scalability

In an effort to scale the ACP Quality Connect: Chronic Pain and Safe Opioid Prescribing initiative, ACP has made a number of resources available online as part of the chronic pain QI/practice transformation toolkit. ACP's Center for Patient Partnership in Healthcare is developing a number of patient resources on chronic pain self-management, which will be made available by the end of 2017. These patient-facing materials will be incorporated into the toolkit to ensure that ACP provides both provider and patient-facing resources.

Additionally, ACP continues to provide training opportunities for new QI champions. ACP trained 11 new chronic pain champions during the 2017 QI champion training pre-course during the ACP internal Medicine Meeting. Three of the new champions were from the New York Internal Medicine residency training program. Additionally, ACP will be sponsoring a grand rounds speaker to present at the NY IM residency training program on the topic of safe opioid prescribing practices in the fall of 2017. ACP will continue to offer QI champion training opportunities on an annual basis as a pre-course session at the ACP Internal Medicine Meeting. ACP's biweekly coaching call series is also ongoing, which provides an opportunity for clinicians across the country to consult with national faculty experts when implementing a QI activity.

Data collection remains a barrier and burden to effective QI. A number of champions had difficulty collecting data at a system level to assess gaps and monitor improvement over time. Even with the support of IT staff, champions had difficulty collecting appropriate data due to concerns over privacy as well as technology limitations of the EHR systems. In an effort to help mitigate this issue, ACP has invested in the addition of two opioid measures to the ACP Genesis Registry. The Genesis registry is a national, multi-specialty, CMS-approved qualified clinical data registry (QCDR) that supports the automated exchange of data from the EHR to the registry. The registry supports automated data

integration through the use of standardized data file formats that are exported from the EHR and fed to the registry. Data submitted to the Genesis registry are updated in near real-time (e.g., on a daily basis).

The Genesis registry has a robust performance feedback monitor that allows users to view their performance across several performance measures over time, compare performance against peers and national benchmarks, identify patient outliers, and link to educational tools and resources. As a QCDR, the Genesis registry can be used to meet quality reporting requirements under the Quality Payment Program (QPP). In 2017, CMS approved 59 electronic measures to be included in the Genesis registry than can be used for the Merit-based Incentive Payment System (MIPS) reporting under the QPP, including the two opioid measures. These measures, which were developed by the American Academy of Neurology Institute (AANI), include Evaluation or interview for risk of opioid misuse and Opioid therapy follow-up evaluation). ACP licensed the right to electronically specify the AANI's opioid measures to convert them into electronic clinical quality measure format for inclusion in the Genesis registry. Because these measures will be reportable through the MIPS, QI programs focused around these opioid measures can be tied to value and increased reimbursement for treatment of Medicare patients. These new measures will be made available to all current enrollees in Genesis (over 39,000 clinicians) as well as new enrollees.

Additionally, ACP's Quality Connect program has received preliminary approval as a CMS-approved improvement activity under MIPS. The ACP Quality Connect programs in conjunction with the Genesis registry can help ease the burden of quality reporting requirements, while also promoting improve quality of care for patient with chronic pain.

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