

SECTION A: COVER PAGE

1. **Title:** Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC)
2. **Grant ID:** 16364911
3. **Collaborators:** (*Pending organization board/leadership vote)

Academic Organizations

- University of Kentucky College of Medicine, Dept. Family & Community Medicine
- University of Pikeville, Kentucky College of Osteopathic Medicine
- Appalachian Osteopathic Post-Graduate Training Institute Collaborative
- West Virginia Prevention Research Center/W. Virginia Univ. School of Medicine

Prescription Monitoring Agencies

- KASPER (Kentucky All Schedule Prescription Electronic Reporting)
- West Virginia RX data track (contracted through West Virginia Board of Pharmacy)*

Family, Osteopathic , & Internal Medicine Associations

- Kentucky & West Virginia Academies of Family Physicians
- Kentucky American Colleges of Physicians*; Kentucky Primary Care Association
- Kentucky & West Virginia Osteopathic Medical Associations*

Other Community Organizations

- Kentucky and West Virginia AHECs
- Kentucky Academy of Physician Assistants*
- West Virginia Nurses Association Advanced Practice Congress
- American Massage Therapy Association, National Office & KY/WV Chapters

4. **Abstract:** The Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) proposes a multi-faceted CE approach targeted at health professions in a region of the U.S. that has suffered from opioid overuse and inappropriate prescribing practices. CAIPEC will bring state organizations, academic institutions, and targeted stakeholders together to deliver evidence-based chronic pain education and delivery interventions. Multifaceted approaches to CE have a greater impact in clinical practice change compared to solitary activities; our proposal addresses this need and goes further by reaching across a spectrum of interdisciplinary and inter-professional audiences. CE activities (with culminating resources available at participating AHECs) will include webcasts, live round-table community meetings, web-based enduring material, and a “Chronic Pain Practice Toolkit” that can be used for Maintenance of Certification (MOC) Part IV PI-CME credit. CAIPEC is also partnered to present at the state-required inter-professional chronic pain CME conferences in both KY and WV hosted by the KY/WV Academies of Family Physicians. CAIPEC effectiveness will be evidenced by measured changes in practitioner knowledge and attitudes plus impact on implementation and practice performance will be evaluated in a controlled study of (patient-level) pain evaluation and (population-level) opioid prescriptions rates.

SECTION C: PROPOSAL

1. **Goal and Objectives:** The Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC)'s **overarching goal** is to improve the delivery of chronic pain management to Central Appalachia residents through an evidence-based and inter-professional approach. CAIPEC's goal closely aligns with the focus of the Consortium's RFP: *Engaging Interdisciplinary and Interprofessional Teams in the Care and Management of Chronic Pain Patients* by delivering multi-faceted continuing education (CE) interventions to a professionally diverse group of health providers caring for individuals with chronic pain. CAIPEC's program intends to impact patient-centered outcomes through advancing knowledge on team-based care and processes and the appropriate management of chronic pain through pharmacologic and non-pharmacologic modalities. We will achieve our overarching goal through the following **key objectives**:

a. To increase knowledge and capacity of a team-based approach in chronic pain management across disciplines and professions through integrated and multi-faceted continuing education (CE) interventions.

i. This objective will be achieved by developing and delivering the proposed evidence-based educational activities through a collaborative and co-presenter approach with representation of 3 professions and/or disciplines.

b. To impact practice performance in terms of patient measures (i.e., pain control) and rates of opioid prescribing through chronic pain management CE interventions and the implementation of the Chronic Pain Practice toolkit (CPP Toolkit).

i. This objective will be achieved by developing and disseminating the CPP Toolkit to an inter-professional audience and evaluating its impact in a cohort of primary care clinics in both Kentucky and West Virginia using Process, Management, Patient, and Team-based Evaluation.

c. To increase the use of interdisciplinary healthcare services in the management of patients with chronic pain.

i. This objective will be achieved by accomplishing objectives (a) and (b) and assessing change in team-based approaches and reach among learners from all educational venues.

2. **Technical Approach**

CAIPEC will utilize evidence-based chronic pain management guidelines as the basis to deliver education through an inter-professional and interdisciplinary approach. CAIPEC activities, including community roundtable discussions, case-based webcast, and state conference presentations, will target varying professions and disciplines that care for Central Appalachians throughout the chronic pain spectrum. These include physicians, advanced practice providers (APP), massage and behavioral therapists (MT and BT), and

physical therapists (PT). The content of educational activities will have cross-cutting themes in epidemiology and pathophysiology of chronic pain, assessment and shared-decision making approaches, treatment options that include inter-professional and interdisciplinary approaches, and practice enhancement in managing chronic pain patient populations. KY and WV medical licensure boards both have chronic pain CME requirements for prescribers. The KY and WV Academies of Family Physicians received funding from the Federation of State Medical Boards to host a conference in the respective states. CAIPEC will partner with KAFP and WVAFP to deliver the Risk Evaluation and Mitigation Strategy (REMS) curriculum to an inter-professional audience and will add supplemental CAIPEC content, which includes inter-professional training and practice enhancement tools in the form of a CPP Toolkit. The Toolkit will provide adaptable clinic workflows, pain assessment and risk tools, templates for offices, and customizable controlled medication agreements, for example. These aforementioned activities should attain the goals of the RFP: The improvement of clinical outcomes and quality of life through team-based approaches.

Without adequate outreach, existing evidence that collaborative care interventions can be effective in improving outcomes of chronic pain patients over usual care¹ will not reach the desired level of impact. The HHS- and NIH-established Interagency Pain Research Coordinating Committee (IPRCC) and the Institute of Medicine² have recognized the national need to bridge this gap, and have called for in-depth education of healthcare professionals and teams to create a “cultural transformation in the perception and treatment of people with pain”.³ In what follows, we describe the high level of need for this approach in our Appalachian target population and provide detailed elements of our project plans.

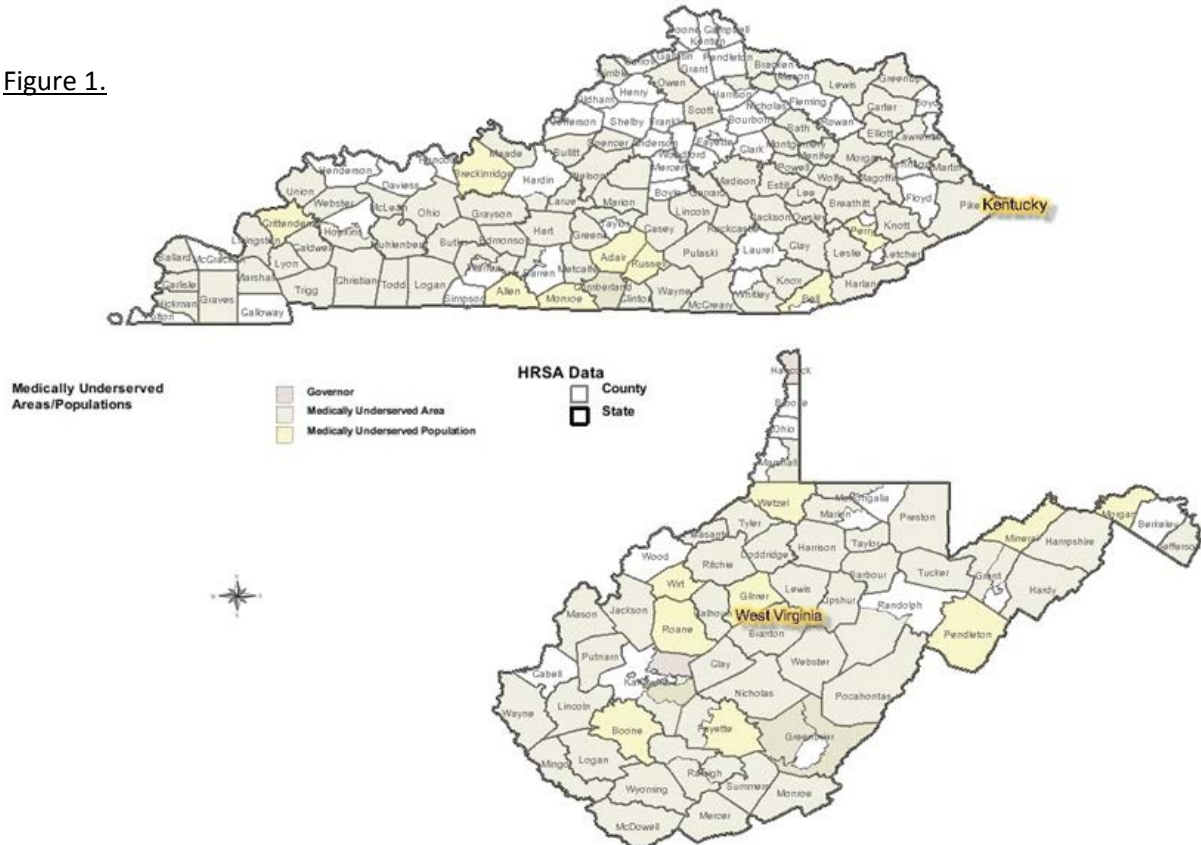
3. Targeted Needs Assessment

Rates of opioid and benzodiazepines prescription are disproportionately high in Appalachia. The targeted regions of West Virginia and Kentucky are both among the leading states for painkiller prescriptions: A 2012 report ranked Kentucky fourth in the country for the number of opioid pain reliever prescriptions (128.4 per 100 persons) and fifth for benzodiazepines (57.4 per 100 persons). West Virginia fairs worse by ranking third for opioid pain relievers (137.6 per 100 persons) and first for benzodiazepines (71.9 per 100 persons).⁴ West Virginia leads the nation in the number of drug overdose deaths at 28.9 per every 100,000 people; Kentucky suffers from a similarly high rate.⁵

At the core of these alarming statistics is the high prevalence of painful and disabling conditions in these states. In 2011, 15.8% of adults in Kentucky and 17.6% in West Virginia reported having a disability, compared with 10.4% of the U.S. population.⁶ And, while chronic pain is associated with a number of different medical conditions, arthritis is the most prevalent of diagnoses, found in 22.7% of the U.S. population with an even greater percentage in women. It is striking that Kentucky and West Virginia lead the nation in the percent of women with arthritis (both are more than 10% above the national average), and that these are the only two states in which both women and men are in the CDC’s highest prevalence grouping.⁷ In addition, these states incur more heart disease, obesity,

depression, COPD, and diabetes than the U.S. overall.^{8,9} This geographic variation is poorly understood, creating a tremendous need for regionally sensitive collaborative efforts in professional continuing education with an emphasis on team-based care.

Figure 1.



Addressing the health needs of these populations is not easy, however, since Central Appalachia also suffers from a primary care provider shortage. According to a 2014 Health Resources and Services Administration (HRSA) report, West Virginia and Kentucky have, respectively, 51 and 95 designated medically underserved geographical areas (MUAs; Figure 1).¹⁰ Documentation of MUA shortages includes several factors (see Table 1) in addition to the availability of health care providers, but this latter factor alone is striking. With 106 designated primary care Health Professional Shortage Areas (HPSAs) in West Virginia and 132 primary care HPSAs in Kentucky, thousands of citizens in each state are impacted.

	West Virginia	Kentucky	National
Infant mortality rate (per 1,000)	8.1	6.6	6.9
Poverty rate	17.6%	18.6%	14.9%
Percent of population aged 65+	17.3%	14.4%	14.1%

However, the primary care provider landscape continues to change as more than half of all primary care providers work with advanced practice providers, such as nurse practitioners

and physician assistants.¹¹ Moreover, in a recent national study, adults are using chiropractic or osteopathic manipulation and massage as 2 of the top 4 complementary health approaches in both metropolitan and nonmetropolitan areas.¹² These factors highlight the need for both inter-professional and interdisciplinary approaches in healthcare, including chronic pain management.

4. Design and Methods

CAIPEC is a multifaceted CE program focused on educating physicians, APPs, MT, BT, and PT about chronic pain management in Central Appalachia. The program will include live education venues and enduring web-based experiences. A compendium of electronic pain management resources derived from these and other existing activities will be electronically compiled and made available to providers in Central Appalachia through dissemination efforts of AHECs as another form of enduring materials in this predominately rural region of the U.S. We also plan to disseminate the activities and developed resources to all health professional education programs in Kentucky (KY) and West Virginia (WV). Table 2 provides information about these venues.

Deliverables	Total CE credit	Target Audience*	Activity occurrence	Dissemination Method
Community Roundtables	Up to 320 hrs	MD, DO, NP, PA, PT, BS, MT	8 (4 in KY and 4 in WV), recorded and posted	Interactive case-based dialogue; 3 inter-professional moderators
State required Chronic Pain CME presentations	Up to 6-8 hrs/ learner	MD, DO, NP, PA, PT, BS, MT	In both KY and WV	2 inter-professional presenters
Webcasts-Chronic pain cases	Up to 7.5 hrs per 7 webcasts/ learner	MD, DO, NP, PA, PT, BS, MT	7 interactive webcasts; Enduring material	CE Central website; program partner websites; social media
Chronic Pain Practice (CPP) Toolkit	800 hrs PI-CME	MD, DO, NP, PA, Clinical staff	Enduring material; In-clinic QI processes	State presentations; websites; CE Central website; program partner websites; social media
Webcast for CPP Toolkit	Up to 1 hr/learner	MD, DO, NP, PA, Clinical staff	Interactive Webcast; Enduring material	
Maintenance of Certification (MOC) Guide	Per CPP Toolkit above	MD, DO	Enduring material	

*MD, doctor of allopathic medicine; DO, doctor of osteopathic medicine; NP, nurse practitioner; PA, physician assistant; PT, physical therapist; BS, behavioral specialist; MT, massage therapist

Activities will span across KY and WV. Coordination and implementation of the CAIPEC

activities will be managed by personnel located at the University of Kentucky (UK) and West Virginia University (WVU).

CAIPEC chronic pain management content

The outlined activities will be based on evidence-based guidelines and expert resources from the Institute for Clinical Systems Improvement, American Academy of Pain Management, American Academy of Pain Medicine, American Pain Society, and PainEDU.org. The content that is derived from these resources will be augmented by inter-professional societies and research including materials provided from the American Massage Therapy Association, the Orthopedic Section of the American Physical Therapy Association, and research in Cognitive-Behavioral Therapy.¹³ These resources will be utilized to develop the following core modules with guidance from Dr. Chong Han Kim, a board certified pain management specialist, Dr. William Elder, an expert in behavioral therapy and massage therapy research related to chronic pain Kathryn Stewart, LMT, a licensed massage therapist, Dr. Patrick Kitzman, UK faculty in PT, and Drs. William Betz, Dana King and Roberto Cardarelli, physicians with expertise in practice-based research, musculoskeletal health and manipulation, and team-based care. These experts will work with collaborators across disciplines to ensure content is appropriate and engaging for the inter-professional and interdisciplinary audience.

Module 1: Epidemiology of Chronic Pain

Learning objective 1a: Define the prevalence of chronic pain in Central Appalachia and the burden of chronic pain to society

Learning objective 1b: Describe overdose death rates and opioid prescribing rates in Central Appalachia

Learning objective 1c: Recognize the different provider disciplines caring for people with chronic pain

Module 2: The Biopsychosocial Aspects of Chronic Pain

Learning objective 2a: Define the four physiologic elements of chronic pain

Learning objective 2b: Discuss the definition of abnormal pain

Learning objective 2c: Explain the somato-somatic and visceral-somatic aspects of chronic pain

Learning objective 2d: Describe the mental and social linkages to chronic pain

Module 3: Risk Management

Learning objective 3a: Identify factors that place patients at high risk for controlled medication use/abuse

Learning objective 3b: List tools and resources that can be used to identify patients at high risk for controlled medication use

Learning objective 3c: Discuss the elements of a controlled medication agreement and basic clinical tests in a risk management workflow strategy

Module 4: Chronic Pain History and Shared Decision making Approaches

Learning objective 4a: Define common terms and categories describing pain

Learning objective 4b: Identify key elements in the patient’s chronic pain history
Learning objective 4c: Discuss the behavioral elements in the patient’s chronic pain history
Learning objective 4d: Practice shared decision making approaches with patients with chronic pain

Module 5: Examination and Diagnostic Testing in Patients with Chronic Pain

Learning objective 5a: Define soft tissue and musculoskeletal elements of a physical examination in patients with chronic pain
Learning objective 5b: Discuss behavioral and neurological elements of the physical exam
Learning objective 5c: Identify appropriate diagnostic testing in chronic pain cases

Module 6: Non-Pharmacologic and Pharmacologic Treatment Options

Learning objective 6a: Identify non-pharmacologic options in chronic pain management
Learning objective 6b: Discuss behavioral therapy approaches in managing chronic pain
Learning objective 6c: Describe appropriate pharmacologic options, including adjuvant therapies, in chronic pain management

Module 7: Practice Enhancement in Managing People with Chronic pain through a Team-based Approach

Learning objective 7a: Describe a team-based approach in chronic pain management
Learning objective 7b: Develop a comprehensive workflow model for clinic practice
Learning objective 7c: Discuss referrals patterns to providers

The content of all seven modules are applicable to the intended interdisciplinary and inter-professional audience. It is just as valuable for the physician to understand the non-pharmacologic and behavioral approaches to chronic pain as it is for the massage and behavioral therapists, for example, to be aware of the pharmacologic options in the management of patients. These modules function as the overlaying framework and outline for all educational activities proposed in the CAIPEC program (Table 2). These objectives will be covered during community roundtable events, conference presentations, the seven webcasts, and the content of the CPP toolkit. The following describes each activity of the CAIPEC program:

Community Roundtables

Inter-professional community roundtable events will be hosted in collaboration with the regional AHECs. Dissemination about the roundtable events will occur through the AHECs and the partnering state professional organizations. Regional AHECs will assist in securing event locations (Table 3). Roundtable events will include facilitated chronic pain management case-based interactive sessions that highlight educational content aligned with the module objectives. Facilitators will include a physician or APP, a behavioral specialist, a massage therapist, or physical therapist. Each roundtable will include up to 20 participants from various professional disciplines. An overarching theme will be team-based

approaches to managing individuals with chronic pain and how local factors either facilitate or impede team-based approaches. Each session will be approximately 2-hrs in length and CE will be provided after completing the pre/post event evaluations. Four roundtables will be conducted in KY and another four roundtables will occur in WV for a total of eight roundtables. We anticipate reaching 160 participants for a total of 320 individual contact hours for this specific educational intervention.

Table 3. Chronic Pain Community Roundtable Events (2 hrs CME/Event*)		
<u>Partnering AHEC</u>	<u>Number of Roundtables in Region</u>	<u>Anticipated Number</u>
Northeast KY AHEC	2	40
Southeast KY AHEC	2	40
Southern WV AHEC	2	40
Northern WV AHEC	2	40
TOTALS	8	160 (320 CME hrs*)

State-Required Chronic Pain CME Conference Presentations

Drs. Cardarelli and Elder will provide 3-4 hr lectures at each conference in KY and WV. KY and WV medical licensure boards both have chronic pain CME requirements for prescribers. The KY and WV Academies of Family Physicians received funding from the Federation of State Medical Boards to host a conference in their respective states; recently approved by the medical boards. CAIPEC is partnered with KAFP and WVAFP to deliver the content of the Risk Evaluation and Mitigation Strategy (REMS) curriculum to an **inter-professional audience** with supplemental CAIPEC content to disseminate the inter-professional and team-based approach to chronic pain management. Each conference is anticipating 100-200 provider attendees.

Chronic Pain Education Webcasts

Seven live and archived webcasts will be conducted throughout the duration of the grant period for the interdisciplinary and inter-professional target audience. There will be 7 webcast cases, each focused on one of the 7 modules with the targeted learning objectives as described above. The webcasts will be 1-1.5 hr in duration and CE will be provided after evaluations are complete. Providers will be notified about the live webcasts, and availability of archived webcasts, through our collaborations with the professional societies and with announcements during the roundtable and conference presentations.

Table 5. CAIPEC Webcasts		
<u>Topic</u>	<u>Target Audience*</u>	<u>CE credit</u>
Epidemiology of Chronic Pain	MD, DO, NP, PA, PT, BS, MT	1 hr
The Biopsychosocial Aspects of Chronic Pain	MD, DO, NP, PA, PT, BS, MT	1 hr
Risk Management	MD, DO, NP, PA (PT, BS, MT may benefit)	1 hr
Chronic Pain History and Shared Decision making Approaches	MD, DO, NP, PA, PT, BS, MT	1 hr

Examination and Diagnostic Testing in Patients with Chronic Pain	MD, DO, NP, PA (PT, BS, MT may benefit)	1 hr
Non-Pharmacologic and Pharmacologic Treatment Options	MD, DO, NP, PA, PT, BS, MT	1.5 hr
Practice Enhancement in Managing People with Chronic pain through a Team-based Approach	MD, DO, NP, PA (PT, BS, MT may benefit)	1 hr
TOTALS		7.5 hrs

*MD, doctor of allopathic medicine; DO, doctor of osteopathic medicine; NP, nurse practitioner; PA, physician assistant; PT, physical therapist; BS, behavioral specialist; MT, massage therapist

Chronic Pain Toolkit (CPP Toolkit)

The CPP Toolkit will be a collection of resources and templates for clinics to adapt based on their specific needs. The Toolkit will align with the educational content of the seven modules of the CAIPEC chronic pain management program and will function as a “how-to” for providers. The collection will include adaptable clinic workflow designs delineating action items for initial visits and subsequent follow-up visits. Also, templates for risk management and assessment will be provided, such as controlled medication agreements. The following table lists the elements of the Toolkit that are aligned with the 7 modules. The Toolkit will have accompanying links to guidelines that may be pertinent for a specific profession. Learners who access and implement the Toolkit will be encouraged and guided to utilize it as a Quality Improvement (QI) project for their healthcare setting, and assisted with the processes for maintenance of certification (MOC) PI-CME credit, provided through UK HealthCare CEcentral, which is approved (June 1, 2013) as a Portfolio Sponsor by the Multi-Specialty MOC Portfolio Approval Program to develop, monitor and approve quality improvement (QI) projects for MOC Part IV credit. The CAIPEC program will:

1. Assist clinics with workflow design and adaptation with selected tools appropriate for specific practices,
2. Assist clinics in the implementation and trouble-shooting of the workflows and activities, and
3. Provide assistance and guidance to providers in completing the QI process and obtaining PI-CME through the MOC Part IV program.

<u>Corresponding Modules</u>	<u>Toolkit element</u>	<u>Purpose</u>
Biopsychosocial	PHQ-9 Depression Inventory ¹⁴	Screen for co-morbid depression
Risk Management	ASSIST ¹⁵ ; CAGE-AID ¹⁶	Screen for levels of addiction and current alcohol and substance dependence

	Alcohol Use Disorders Identification Test (AUDIT) ¹⁷	Assess extent of alcohol impact and provide referral guidance
	Current Opioid Misuse Measure (COMM) ¹⁸ ; Opioid Risk Tool (ORT) ¹⁹	Assesses risk for active and problematic behavior with opioid use
	Controlled Medication Contract	Sample contract requirements
	Exit Strategy Algorithm	A plan to discontinue opioid therapy
Chronic Pain History & Assessment	Pain Assessment and Documentation tool (PADT) ²⁰	Sample of chronic pain progress note
	Pain Disability Index ²¹	Measures life disruption from pain
	Universal Pain Assessment tool	Additional measure to objectively assess pain level
Practice Enhancement & Team Based Care	Sample clinic workflows	Provides a flow of activities and steps including interdisciplinary and inter-professional involvement in care

CPP Toolkit and MOC Part IV Process Webcast

A webcast, with applicable and free CE, will appear on the UK CECentral site. It will identify the elements of the Toolkit described previously, focus on the implementation aspects of the Toolkit and it will also discuss a recommended QI process related to using the Toolkit and the process to receive MOC Part IV PI-CME credit. The webcast will be 1 hr in duration and archived.

Maintenance of Certification Guide for Physicians

A pdf guide will be developed to assist physicians in translating their QI efforts into applying for specific MOC Part 4 credit towards maintaining board certification. In essence, we propose building from the CPP Toolkit and accompanying guidance such that an implementable QI intervention can be followed using an eight-step QI process that can also lead to MOC credit. Guidance about the American Board of Medical Specialties MOC process will be provided. In addition, a pain management Self-Assessment Module (SAM)²² that has been developed by the American Board of Family Medicine has been recently approved by the Kentucky Medical Board. Family medicine providers will be educated about the existence of this SAM opportunity as well. Providers may receive varying CE credit through the sponsoring organizations. For example, providers can receive up to 20 hrs of CME by fully completing a MOC Part 4 process.

This provides a unique opportunity to transform educational interventions, causing practice change and impacting patient and community outcomes.

Dissemination Plan

The CAIPEC program has a multi-modal dissemination plan which starts with a centralized website developed and managed by CECentral for all activities, which will also host the webcasts and be archived on the website. All events, the CCP Toolkit, guides, and resources will be available on the CAIPEC landing page.

CECentral distributes online educational modules in 40 healthcare-specific content areas and delivers them through a variety of formats including webcasts, case studies, electronic monographs and, most recently, eLearning Communities. Averaging over 9,000 unique visitors each month, the web-based platform has delivered credit to over 115,000 health care professionals worldwide. The rapidly growing impact of CECentral and the breakdown of professions it serves can be seen by the statistics described below:

- 9,900+ visitors each month
- 57,000+ page views each month
- 4,200+ CE certificates served each month
- 115,000+ HCPs total membership
- 41,000 Physicians
- 21,000 Pharmacists
- 9,500 Nurse APNs
- 11,000 Nurses
- 3,000 PAs
- 700+ new members each month

Viewership is obtained on an initiative-specific basis by a mixture of two strategies. First, learners are solicited through a series of targeted e-blasts. CECentral members who are opted into the email listserv, and who match the specialties needed in the initiative, are selected for the email. A branded e-blast is then crafted with a link (a call to action) to the learning initiative. The e-blast conforms to the regulations described in the CAN SPAM act. Second, learners who arrive on CECentral through organic search or from an affiliated web site are directed to the initiative through: (a) a search tool, (b) spotlight graphic on topic page, (c) banner graphic on topic page, or (d) text links on home or topic page. We will not go into the technical specifics here, but organic traffic is driven to CECentral by a mixture of affiliated site linkages and search engine optimization techniques.

Upcoming events, resources, and activities will also be disseminated through the CAIPEC partnership network that is demonstrated in the attached Letters of Commitment. Professional organizations will include information about CAIPEC activities through membership email blast, newsletters, and meetings. Conference presentations will be directly marketed by the KY and WV Academies of Family Physicians, as the host

organization. There is a strong likelihood the CAIPEC on-line programs will be accessed by providers outside the Central Appalachia catchment area, which is welcome. All ensuing on-line material (guides, archived webcasts, and resources) will be available and accredited for 3 years beyond the funding timeframe. Some specific dissemination strategy examples include:

- Informational emails to all health profession educational programs in KY and WV
- Partner professional conferences
- CAIPEC website
- Direct member email blast through partner professional organizations (medicine, massage therapy, etc.)
- AHEC partners
- AHEC associated community faculty
- Practice-based research network members (primary care and physical therapy)
- Appalachian Osteopathic Post-Graduate Training Institute Consortium (AOPTIC)

Results will also be reported to academic medical and education audiences via submission to peer-reviewed journals.

Anticipated challenges and solutions

Several challenges are apparent. 1) Distances and remoteness. The Appalachian regions of KY and WV are predominately rural, and their remote location may affect accessibility and participation in CE activities. *Solutions.* Our team is highly experienced with this issue. Our AHEC system locates personnel in our remotest areas, hiring “local people” with a mission to engage health care providers. This proposal benefits from their established experience in promoting and organizing local activities. Also, CECentral will enable effective distance learning. Following early recognition of regional need for advanced communication technologies, high speed and state of the art video networking is available to deliver education and direct care daily. 2) Achieving and measuring practice change is difficult. *Solution:* As described in below in Section D, our team has significant experience and has refined processes to achieve practice change through educational and Quality Improvement (QI) interventions. Our plan to deliver change through the MOC process will be developed with ABFM, which is located in Lexington with its leadership appointed in our department. 3) Advancing interdisciplinary and interprofessional care is relatively new territory and requires innovative techniques. The UK Office of Interprofessional Education (IPE) is recognized nationally for its advanced training methodologies, highlighted by CECentral, described above. Through our prior IPE work we are already aware of barriers to team-based care, and we will gather further information as we work with identified associations and stakeholders to develop specific IPE activities with measurable training objectives. 4) Sustainability. *Solutions.* The solutions just described reveal significant strengths and resources that will contribute to sustainability of our efforts. It should be evident that the issues the RFA seeks to address are the kinds of problems we care deeply about and will continue to work on. Unstated before, but perhaps our main motivation for pursuing this funding is the opportunity it affords to create an impactful, community provider intervention working with the other schools and associated networks.

5. Evaluation

a) *Community Roundtables, Webcasts, and State Conference Presentations*

Moore's 7-Level CME framework will evaluate the effectiveness of the educational methods.²³ The number of CE credits provided and the professional distribution of CE for each activity type will be reported (Moore's Level 1). The quality of each activity will be assessed at the conclusion of the activity in terms of clarity of content, meeting stated objectives, and personal satisfaction with the education experience (Moore's Level 2). Declarative and procedural knowledge and competence (Moore's Level 3A, 3B, and 4) will be assessed. Baseline and post-evaluations will occur for community roundtables, live and archived webcasts, state presentations, and the CPP Toolkit in-clinic implementation evaluation. For each activity, knowledge gained will be directly evaluated as will intent to change practice as a result of the educational experience and content.

Moore's evaluation level 1 through 4 will be applicable for all professions (MD, DO, PT, BS, APP, MT) as all activities will be inter-professional. There is an anticipated change of 20% from baseline to post-evaluation for knowledge attainment and intention to impact practice. The evaluation instrument used will be developed based on previously tested instruments in the literature (e.g., The Knowledge and Attitudes Survey Regarding Pain²⁴, the Dartmouth Hitchcock Medical Center's Medical Staff Knowledge and Attitudes Pain Survey,²⁵ and others^{26,27}). Due to the anticipated inter-professional audience, we have identified instruments that have been used for research and educational purposes for different professions. The CAIPEC team will merge these instruments following Moore evaluation levels. In addition, team-based assessments will be integrated throughout the evaluation process. The Institute of Medicine's report, *Core Principles & Values of Effective Team-Based Health Care*,²⁸ will be used as the foundation of team-based assessment questions for the CAIPEC program. The evaluation instrument will be a combination of Likert questions/statements, multiple choice and true/false questions, and case vignettes. In-person live events (roundtable and state presentations) will use paper-based evaluations. Live and archived webcasts will be web-based evaluations.

Comparison group: We acknowledge that there are on-going efforts by state organizations throughout the US, including in Central Appalachia, that are focused on addressing appropriate chronic pain management. Therefore, it is imperative that a comparison group is used to assess the true impact of CAIPEC's activities. We will leverage our leadership of three practice-based research networks (PBRNs; two in primary care, and one in physical therapy) and relationships with the AMTA to send surveys to providers (MD, DO, APP, patient, MT) about their knowledge and attitudes related to chronic pain management. We will identify 25-50 providers in each PBRN **who has not participated in any CAIPEC activity** and have the same survey (as CAIPEC participants) sent by mail or completed by phone or on-line.

Analyses: Counts and frequencies will be used to assess reach of each activity. Cross-tabulations will be conducted to assess inter-professional dispersion and participant

demographics. Pre-post evaluations will be assessed for statistical significance using t-test and chi-square analysis for continuous and categorical variables, respectively. Post-activity evaluations of participants will be compared to the comparison group described above. Similar statistical methods will be utilized in this comparison.

b) Chronic Pain Toolkit (and webcast)

The CPP Toolkit was described above. Its intent will provide convenient, practical and relevant resources to clinics as a means to integrate a chronic pain management process. Provider performance (Moore's Level 5) and patient-centered outcomes (Moore's Level 6) will be assessed to measure outcomes of implementation of the Toolkit. This will be accomplished by partnering with two PBRNs (Kentucky Ambulatory Network and the West Virginia Practice-Based Research Network). These two PBRNs will each recruit through its large membership roster (45-55 clinics/664 clinicians) 10 intervention clinics/providers and 10 control clinics/providers for a total of 20 intervention and 20 control clinics/providers. The intervention clinic providers will have completed an in-person detailing of the chronic pain presentations by the CAIPEC team (replicates state conference presentation) and, through direct assistance with the CAIPEC team, will implement the CPP Toolkit in the clinic. This will include customizing clinic workflows, instruments and processes based on the Toolkit and adapted for specific clinics. The control clinics will not have the Toolkit implemented, but will be provided information about the MOC process after the project evaluation period.

Direct measurement of appropriate chronic pain management and processes based on the content of the CAIPEC, and the underlying guidelines, will be used for the evaluation. In addition, patient health will be assessed by pain scores. This will be performed by reviewing medical records through a quality improvement process and recording if appropriate actions occur, such as risk assessment, mental co-morbidity assessment, appropriate treatment options, referrals for imaging and non-pharmacologic management (i.e., behavioral, massage and physical therapy) and patient-level data (i.e., pain score). Team-based outcomes will also be assessed for communication between providers within the clinic and/or referrals to other providers. These activities will be extracted from the medical records. Eligible charts will be identified through daily schedules and the goal is to identify 20 charts per clinic/provider. This results in 400 intervention charts and 400 control charts.

Analyses: Defining appropriate pain management is difficult. Hence, evaluations for the CPP Toolkit will be divided into 4 general categories: Process Evaluation, Management Evaluation, Patient Evaluation, and Team-based Evaluation.

Process Evaluation will assess whether core elements of work-plans are implemented and executed. This includes the presence of controlled medication agreements, urine drug screens, pain score documentation, etc. The RE-AIM framework will be the basis of the process evaluation plan.²⁹

Management Evaluation will entail appropriate documentation of the type of pain, assessment, and corresponding treatment options and referrals. These will be based on the approach and content of the CAIPEC program.

Patient Evaluation will be measured by the pain score documented in the medical chart.

Team-based Evaluation will be based on pre/post evaluations of providers and staff in the clinics. Also, secondary measures, such as percent of referrals to massage, behavioral and physical therapy will be collected from chart reviews.

These four evaluations will be performed in the intervention and control clinics and be compared for baseline and 6 months after CPP Toolkit is fully implemented in the clinic. The impact of the Toolkit is expected to demonstrate a 10-20% difference between the intervention and control groups for each evaluation category. Appropriate bivariate analyses will be performed to assess for statistical significance at a 0.05 level.

c) Community impact (Moore's Level 7) of the CAIPEC program

Community impact will be performed in collaboration with KASPER, Kentucky's prescription reporting system. KASPER will provide county level data on opioid usage/prescription rates. We will compare opioid usage/prescription rate changes Eastern KY with Western KY, where the CAIPEC program was not active. These measures will be performed prior to CAIPEC program implementation and 3 month after the CPP Toolkit intervention, roundtable and conference presentations are complete. Based on the limited 15-month duration of the project, we anticipate a 5% relative reduction of opioid usage/prescription rates.

6. Work Plan and Deliverables Schedule

Months 1 and 2 will involve IRB approval at the University of Kentucky, West Virginia University Health Science Centers, and University of Pikeville. During this period administrative processes, such as executing sub-contracts, will be performed. Immediate study planning meetings and training will occur including the hiring of the program coordinators in KY and WV. Content of each module and the CPP Toolkit, with associated evaluation tools, will be completed and vetted by all content experts during Months 1-3. During this time, the CAIPEC website landing page will be completed and made functional through CECentral. We will also be preparing all logistics related to community roundtables with the AHECs and webcast recordings with CECentral. During months 2-3, the Maintenance of Certification Guide will be completed and uploaded to the CAIPEC website. In addition, recruitment for the CPP Toolkit evaluation study will commence once IRB approval is secured. Roundtables, conference presentations and webcasts will occur concurrently during months 3-10. The CPP Toolkit evaluation study will occur from months 6-14. Months 14-15 will be focused on evaluation analyses and reporting, including the community level data analyses (i.e., KASPER Data). The CAIPEC detailed work plan can be found in the appendix.

SECTION D: ORGANIZATIONAL DETAIL

1. Leadership and Organizational Capability:

This project will be produced from the Division of Community Medicine in the Department of Family and Community Medicine at the University of Kentucky College of Medicine (UKCOM) under the leadership of division chief Roberto Cardarelli, DO, MPH. It will be completed through the collaboration of academic organizations, professional associations, practice based research networks, and state prescription monitoring agencies.

Academic Organizations and Associated Offices, Centers and PBRNs

UKCOM and the Medical Center Campus. UKCOM was founded in 1960 and provides innovative, high-quality training to 1405 medical students, graduate students, and residents. Approximately 840 full-time faculty represent eight basic science departments and 17 clinical departments. Located on the same campus are five other health professions colleges (Public Health, Nursing, Pharmacy, Dentistry, and Allied Health Professions), affording excellent inter-professional research and clinical collaboration. UKCOM has a strong social mission (ranked 14th in 2010), and has a special focus on rural health care to address health disparities and service access.

The Division of Community Medicine, the Kentucky Ambulatory Network and the UK CCTS.

Our Division of Community Medicine is charged with the advancement of community medicine approaches in education and research with community partners serving vulnerable populations. Dr. Roberto Cardarelli serves as the Chief of the Division and directs the Kentucky Ambulatory Network (KAN) found within the Division. KAN is a PBRN funded in 2000 by AHRQ that comprises over 300 members and a long history of funded research. Dr. Cardarelli also serves as the Co-Director for the Community Engagement & Research Core of the UK Center for Clinical and Translational Science. The major goal of CCTS is to increase the pace and effectiveness of translational research at UK and in Appalachia.

Kentucky College of Osteopathic Medicine (KYCOM), Pikeville, KY. KYCOM's mission is to provide an osteopathic medical education that emphasizes primary care, promotes lifelong scholarly activity, and produces graduates committed to serving the health care needs of communities in rural Kentucky and other Appalachian regions. KYCOM will provide CME Credit for DO participants; create content on Musculoskeletal Medicine (Dr. William Betz) and collaborate on content presentations at roundtables and professional conferences.

West Virginia University School of Medicine (WVU-SOM)/ West Virginia Prevention Research Center/ West Virginia Office of Health Services/West Virginia Pain Management Center.

For this project, WVU-SOM efforts will originate from the Appalachia campus in Morgantown. From the Department of Neurosurgery, Chong King, MD is a Board certified pain management specialist at WVUHSC. He will oversee and provide guidance for pain management content of the CAIPEC program. Dr. King, Chair of Family Medicine at WVUHSC, will oversee WV PBRN activities. He will also assist Dr. Cardarelli in development and delivery of the primary care content of the CAIPEC program. The WV Offices of Health Services Research and the WV Prevention Research Center are eager to expand research into chronic pain treatment and, under the leadership of directors Geri Dino, PhD and Cecil Pollard, MA, will engage multiple community and clinical

partners, organizations and stakeholders to develop the CPP Toolkit Intervention in WV, meet educational objectives, disseminate results and create results based policy recommendations.

Appalachian Osteopathic Post-Graduate Training Institute Collaborative (AOPTIC). The AOPTIC is a collaborative of 4 medical schools and 19 residency programs with the goal of training DO residents to practice in Appalachia and other rural and frontier sites. The AOPTIC was formed in 1999 and 118 residents are currently training in community based practices. Many of these practices participate in the Frontier Rural Innovations Network (93 practices in eleven states) which originates from the AOPTIC. Under the leadership of John Rehmeyer, MA, Executive Director, the AOPTIC will engage Appalachian practices that are not already members of our PBRNs for implementation of the CPP Toolkit and will also directly disseminate educational content to all members of the Frontier Rural Innovations Network.

Prescription Monitoring Agency

Kentucky All Schedule Prescription Electronic Reporting (KASPER). KASPER was one of the first statewide prescription dispensing systems and it monitors controlled substance prescriptions dispensed within each state. The reports show all scheduled prescriptions for an individual over a specified time period, the prescriber and the dispenser. The agency will collaborate with the project by providing participating practice, zip code and county based controlled substances prescription data pre, post and subsequent to the project to enable conclusions as to project impact.

Practice Based Research Networks (PBRNs)

Described above in association with their academic organizations, the Kentucky Ambulatory Network (KAN) and the West Virginia PBRN will serve as our principal means for recruitment and implementation of our planned CPP Toolkit intervention. In particular, each network will employ a TBN coordinator who will work with physician practices in implementation, and will gather pre and post intervention practice data. The Frontier Rural Innovations Network will assist with practice identification and dissemination of educational programming.

Kentucky and West Virginia Area Health Education Centers (AHECs)

UKCOM and WV-SOM have a long history of successful partnerships with their associated AHECs. The AHECs will assist with organization and hosting of roundtables in central Appalachia with two each in northwest WV, southwest WV, northeast KY, and southeast KY (eight total).

Physician Professional Member Organizations

Family medicine, internal medicine and osteopathic medical associations in each state (six total, including two pending) and the Kentucky Primary Care Association will assist with recruitment of physician participants by providing access to mailing lists and newsletter item placements. Of particular note is our plan to deliver specifically tailored content at annual conferences of the Family Medicine Academies of both states. Specifically, the WV and KY Academies of Family Medicine have contracted with the Federation of State Medical Boards and the KY and WV licensure boards to deliver REMs presentations, and these boards are allowing us to supplement CAIPEC educational modules related to inter-professional approaches to chronic pain management.

Other Professional Community Organizations

Physician assistant and advanced practice nurse associations will participate in the project in

the same fashion as the physician professional organizations to enable recruitment of their members using mailings lists, etc. as well as delivery of content. In addition, the American Massage Therapy Association (a national organization) will support the efforts of its KY & WV Chapters to recruit massage therapists into all activities and will assist with development of MT specific content.

2. Staff Capacity:

Per application guidance, we note that the country of residence for all staff is the United States and that we do not expect that any of the speakers will have received funding from Pfizer for any promotional CME activity in the previous twelve months.

Roles: Key personnel (≥10% FTE). Roberto Cardarelli, DO (10% FTE) will serve as the PI. He will have oversight on all aspects of the program, and will oversee the PBRN evaluation aspects in KY. He will lead in all content developed with the assistance with consultants and co-investigators. He will lead the content of the CPP Toolkit and the primary care aspects of the content. William Elder, PhD (10% FTE) will lead all behavioral content of the CAIPEC program. He will serve as one of the primary speakers. He will assist Dr. Cardarelli in overview of the entire program and its content and deliverables. Two TBN Coordinators (100% FTE each) will work with PBRNs and other organizations in each state. This will include all administrative aspects of the CAIPEC program. They will also be the lead for the in-clinic CPP Toolkit implementation and evaluation for the respective PBRNS.

Consultants. Dana King, MD, Chair of Family Medicine at WVUHSC will oversee the PBRN activities in WV. He will also assist Dr. Cardarelli in creating primary care content. Chong Kim, MD is a Board certified pain management specialist at WV-SOM and will oversee that content of the CAIPEC program. Katherine Stewart is a licensed massage therapist (LMT). She will oversee the massage therapy content and participate in Roundtable didactics. William Betz, DO is Senior Associate Dean at KYSOM. He will provide content expertise on musculoskeletal aspects of care. Patrick Kitzman, PhD, MSPT will oversee our physical therapy content.

Capabilities: Dr. Cardarelli has led the PBRN-based component of the “Debates & Directions in Fibromyalgia,” funded by Pfizer Medical Education (2010). In this project, he enrolled 18 clinics and reviewed over 80 patient charts with fibromyalgia. The study evaluated baseline practice performance and, from baseline assessments, developed an intervention meeting the needs specific of the provider. Impact was evaluated 4 weeks after intervention. The program was part of a multi-faceted approach lead by the Professional and Continuing Education Office at University of North Texas Health Science Center (UNTHSC). He also led a task force in developing a chronic pain education and toolkit for the Department of Family Medicine at UNTHSC that included 6 clinics and over 25 providers. This included lectures, workflows, clinical instruments, that were replicable at each clinic site.

Dr. Elder is a clinical psychologist, full professor and Director of Behavioral Science in the Department. His fellowship focused on interdisciplinary chronic pain rehabilitation. He has completed over 2.5 million dollars of NIH funded research on chronic pain and interdisciplinary care, published peer-reviewed and clinical topics on these subjects, and served on the HRSA Advisory Panel for Interdisciplinary Community-Based Linkages, writing the first HRSA recommendations for interprofessional curriculum guideline.

APPENDICIES

CAIPEC Work Plan			
<u>Activity</u>	<u>Time Frame</u>	<u>Deliverable</u>	<u>Notes</u>
IRB approval	Months 1-2	3 approved IRB protocols	We will need to complete 3 IRBs
Subcontract execution	Months 1-2	Completed and executed subcontracts	Contracts with WVU and University of Pikeville
Study meetings and trainings	Weekly- Month 1; Biweekly-Months 2-3; Monthly- Months 4-15	Meeting agenda and minutes	Delivery of educational activities will occur here and throughout the program.
Staff Hiring	Months 1-2	2 hired coordinators	1 in WV and 1 in KY
Finalize CAIPEC program content	Months 1-3	Final curriculum and evaluations for each module	
Finalize roundtable, state conference, and webcasts speaker assignments	Months 1-3	Speaker assignment roster	
Develop and launch CAIPEC webpage	Months 1-3	Publicly available link to CAIPEC program webpage	Developed by CECentral
Finalize logistics for roundtables,	Months 1-3	Speaker roster with place and time of events	
Develop and finalize Maintenance of Certification Guide	Months 2-3	MOC guide loaded to CAIPEC webpage	
Recruit CPP Toolkit Evaluation Study clinics/providers	Months 3-5	List of study participating clinics/providers	
Community Roundtables, Webcasts, Conference Presentations	Months 5-10	Sign-in sheets; CE delivered; evaluations	These core activities will be occurring simultaneously during these months.
CPP Toolkit Evaluation Study	Months 6-14	CE delivered; evaluations; Number of CPPs implemented	40 clinics/providers in total
CAIPEC Program	Months 14-15	Final reports	Based on KASPER

Community Level Analyses			data
CAIPEC program analyses and reports	Months 14-15	Final reports	

REFERENCES

1. Dobscha SK, Corson K, Perrin NA, et al. Collaborative care for chronic pain in primary care: a cluster randomized trial. *JAMA : the Journal of the American Medical Association* 2009;301:1242-52.
2. Institute of Medicine Committee on Advancing Pain Research C, Education. The National Academies Collection: Reports funded by National Institutes of Health. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington (DC): National Academies Press (US) National Academy of Sciences; 2011.
3. Statement from the National Pain Strategy Task Force's Working Group for Professional Education and Training. (Accessed Oct 13, 2014, at http://iprcc.nih.gov/National_Pain_Strategy/oversight_panel.htm.)
4. Paulozzi LJ, Mack KA, Hockenberry JM. Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines — United States, 2012. *Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report*;63:563-8.
5. Centers for Disease Control and Prevention: National Center for Health Statistics. Multiple Cause of Death 1999-2010 on CDC WONDER Online Database. Data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program; 2012.
6. Erickson W, Lee, C, & von Schrader, S. 2012 Disability Status Report: United States. Ithaca, NY: Cornell University Employment and Disability Institute (EDI); 2014.
7. Centers for Disease Control and Prevention. National Health Interview Survey years 2007–2009. National Statistics: Arthritis Prevalence in Women and Men; 2010.
8. West Virginia Department of Health and Human Resources. West Virginia State Health Profile. 2012.
9. The Health of Kentucky: A County Assessment. 2007. (Accessed Oct 13, 2014, at <http://www.kyiom.org/pdf/healthy2007a.pdf>.)
10. Data Warehouse: Medically Underserved Areas/Populations State Summary of Designated MUA/P. 2014. (Accessed Oct 13, 2014, at http://ersrs.hrsa.gov/ReportServer?/HGDW_Reports/BCD_MUA/BCD_MUA_State_Statistics&rs:Format=PDF.)
11. Hing E, Hsiao C. State variability in supply of office-based primary care providers: United States, 2012. NCHS data brief, no 151. Hyattsville, MD: National Center for Health Statistics; 2014.
12. Jones L. QuickStats: Percentage of Adults Who Used Selected Complementary Health Approaches in the Preceding 12 Months, by Metropolitan Status of Residence — National Health Interview Survey, United States, 2012. *MMWR Morbidity and mortality weekly report* 2014;63:802.
13. Ehde DM, Dillworth TM, Turner JA. Cognitive-behavioral therapy for individuals with chronic pain: efficacy, innovations, and directions for research. *The American Psychologist* 2014;69:153-66.
14. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *Journal of general internal medicine* 2001;16:606-13.
15. Humeniuk R, Ali R, Babor T, et al. A randomized controlled trial of a brief intervention for illicit drugs linked to the Alcohol, Smoking and Substance Involvement Screening Test

- (ASSIST) in clients recruited from primary health-care settings in four countries. *Addiction* 2012;107:957-66.
16. Brown RL, Rounds LA. Conjoint screening questionnaires for alcohol and other drug abuse: criterion validity in a primary care practice. *Wisconsin medical journal* 1995;94:135-40.
 17. Saunders JB, Aasland OG, Babor TF, de la Fuente JR, Grant M. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption--II. *Addiction* 1993;88:791-804.
 18. Meltzer EC, Rybin D, Saitz R, et al. Identifying prescription opioid use disorder in primary care: diagnostic characteristics of the Current Opioid Misuse Measure (COMM). *Pain* 2011;152:397-402.
 19. Webster LR, Webster RM. Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the Opioid Risk Tool. *Pain medicine (Malden, Mass)* 2005;6:432-42.
 20. Passik SD, Kirsh KL, Whitcomb L, et al. A new tool to assess and document pain outcomes in chronic pain patients receiving opioid therapy. *Clinical therapeutics* 2004;26:552-61.
 21. Pollard CA. Preliminary validity study of the pain disability index. *Perceptual and motor skills* 1984;59:974.
 22. American Academy of Family Physicians, CME Topic: Pain Management. 2014. (Accessed Oct 13, 2014, at <http://www.aafp.org/cme/cme-topic/pain.html>.)
 23. Moore DE, Jr., Green JS, Gallis HA. Achieving desired results and improved outcomes: integrating planning and assessment throughout learning activities. *The Journal of continuing education in the health professions* 2009;29:1-15.
 24. Knowledge and Attitudes Survey Regarding Pain, Measurement Instrument developed by Betty Ferrell and Margo McCaffery. 2012 (revised). In: <http://prc.coh.org>.
 25. Medical Staff Knowledge & Attitudes Pain Survey developed by Marie Whedon, Dartmouth Hitchcock Medical Center. Lebanon, New Hampshire: At: <http://prc.coh.org/html/medka.htm>; Sept 1, 1995.
 26. Brzezinski K, Zagorski J, Panasiuk L, Brzezinska M. Assessing levels of knowledge on the principles of pain management during post-graduate education of physicians in Poland. *Annals of agricultural and environmental medicine* 2012;19:851-6.
 27. Zanolin ME, Visentin M, Trentin L, Saiani L, Brugnolli A, Grassi M. A questionnaire to evaluate the knowledge and attitudes of health care providers on pain. *Journal of pain and symptom management* 2007;33:727-36.
 28. Mitchell P, Wynia M, Golden R, et al. Core principles & values of effective team-based health care. Discussion Paper, 2012. Institute of Medicine, Washington, DC. At: www.iom.edu/tbc.
 29. Glasgow RE, Vogt TM, Boles SM. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *American journal of public health* 1999;89:1322-7.

SECTION G: LETTERS OF COMMITMENT

October 13, 2014

Roberto Cardarelli, DO, MPH, FAAFP
Professor, Department of Family & Community Medicine
Chief, Division of Community Medicine
Director, Kentucky Ambulatory Network
Co-Director, Community Engagement & Research Core, CCTS
University of Kentucky College of Medicine
South Limestone Street
Lexington, KY 40536


Dear Dr. Cardarelli,


On behalf of the West Virginia Practice Based Research Network, I am pleased to offer the WV PBRN's support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

There is a clear need for programmatic, team-based professional education in chronic pain management in our service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities we serve.

The WV PBRN is committed to our role in evaluating the activities that are developed through the efforts described in this proposal, and presenting these at our annual conference. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to guarantee access, resources and personnel (as the case may be) so that the maximum benefit can be achieved for the proposed project.

I look forward to working with you in this study.

Sincerely,


Dana King, MD, MS
Professor and Chair



**CABINET FOR HEALTH AND FAMILY SERVICES
OFFICE OF INSPECTOR GENERAL**

Steven L. Beshear
Governor

275 E. Main Street, 5 E-A
Frankfort, Kentucky 40621-0001
(502) 564-2888
Fax: (502) 564-6546
<http://chfs.ky.gov/os/oig>

Audrey Tayse Haynes
Secretary

Maryellen B. Mynear
Inspector General

September 29, 2014

Roberto Cardarelli, DO, MPH, FAAFP
Professor, Department of Family & Community Medicine
Chief, Division of Community Medicine
Director, Kentucky Ambulatory Network
University of Kentucky College of Medicine
740 S. Limestone Street
Lexington, KY 40536

Dear Dr. Cardarelli:

As Inspector General for the Cabinet for Health and Family Services (CHFS) I support your proposed study, "Central Appalachia Inter-Professional Pain Education Collaborative." Improvement in treatment of chronic pain through team-based chronic pain management, targeted continuing medical education for practitioners, and interdisciplinary services in chronic pain management are vitally important objectives. The Office of Inspector General (OIG) is responsible for the Kentucky All Schedule Prescription Electronic Reporting System (KASPER). The objectives of your proposed research are consistent with the KASPER program's mission to reduce opioid prescription drug abuse and improve patient care in Kentucky.

OIG would collaborate with the study team by providing opioid prescribing rates for the Kentucky counties covered under the study, pending approval by the CHFS Institutional Review Board. We look forward to collaborating with you on this important project. If you have questions or need additional information regarding our support for this project please contact David Hopkins at 502-564-2815 ext. 3333 or by email at Dave.Hopkins@ky.gov.

Yours truly,

A handwritten signature in cursive script that reads "Maryellen B. Mynear".

Maryellen B. Mynear
Inspector General

MBM/drh

October 8, 2014

Dear Dr. Cardarelli,

The West Virginia Prevention Research Center and the West Virginia Office of Health Services Research are pleased to support the application for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC). We are excited to collaborate with you on this proposal to begin to address chronic pain management in our communities. The approach, offering team-based professional education, is a recognized need by our community members and clinical partners, and will help fill a gap to address this critical issue. The team-based inter-professional approach supports practice transformation and translational research to create systems change to impact the pervasive connection between chronic pain and opioid abuse in Central Appalachia.

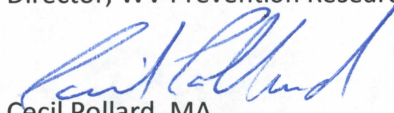
The Prevention Research Center and the Office of Health Services Research are long-standing partners. Together, we are poised to engage community and clinical partners including key state and local health departments, state organizations, health care systems, academic partners, and other stakeholders to inform and participate in intervention development, implementation, dissemination, and policy recommendations. We will commit the resources and access needed to achieve the goals of the proposed project.

We look forward to working with you in this study.

Sincerely,



Gerri Dino, PhD
Director, WV Prevention Research Center



Cecil Pollard, MA
Director, WV Office of Health Services Research



AHEC
Chandler Medical Center
Area Health Education Center
138 Leader Avenue
Lexington, KY 40508-9983
859 323-8018
fax 859 323-1043
www.mc.uky.edu/AHEC

October 13, 2014

Carlos Marin
University Of Kentucky
College of Medicine
AHEC Program Director
138 Leader Ave
Lexington, KY 40506

Dear Dr. Cardarelli,

On behalf of the University Of Kentucky Area Health Education Centers, I am pleased to offer my support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

There is a clear need for programmatic, team-based professional education in chronic pain management in our service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities we serve.

We are fully committed to our role in disseminating the activities that are developed through the efforts described in this proposal, and presenting these at our annual conference. The strategic placement of the regional AHEC program offices place them in an ideal position to provide the logistic support to activities identified in this grant. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to guarantee access, resources and personnel (as the case may be) so that the maximum benefit can be achieved for the proposed project.

I look forward to working with you in this study.

Sincerely,

A handwritten signature in black ink that reads 'Carlos Marin'. The signature is written in a cursive style with a large initial 'C'.

Carlos Marin
Asst Dean/KY AHEC Program Director



October 14, 2014

3110 MacCorkle Avenue, SE
Charleston, WV 25304

Dear Dr. Cardarelli,

It is my pleasure to submit this letter in support of the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC). As Director and PI of the West Virginia Area Health Education Centers (AHEC) Program, I am honored to have West Virginia's AHEC Centers involved in such a valuable project.

West Virginia has a well-documented need for team-based professional education in chronic pain management, and it is our desire to utilize this opportunity to augment our current efforts to address this critical shortage in our communities.

West Virginia AHEC is committed to engage fully with you and the other collaborators on this important project. Our Centers have agreed to participate fully by disseminating the activities that are described in this proposal. The resources we are provided will be appropriately allocated for the purposes for which they are intended, and we will provide access, resources and personnel (as appropriate) so that the maximum benefit can be achieved for the proposed project.

The West Virginia AHEC Program's Centers are excited about this opportunity to partner with you in this study, and we look forward to working with you.

Sincerely,

Sandra Y. Pope, MSW
Director and PI

October 6 , 2014

WVU Pain Management Center
1075 Van Voorhis Road Suite 150
Morgantown WV 26505

Dear Dr. Cardarelli,

On behalf of the Department of Neurosurgery, Pain Management Division at West Virginia University, I am pleased to offer my support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

There is a clear need for programmatic, team-based professional education in chronic pain management in our service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities we serve.

We are fully committed to our role in disseminating the activities that are developed through the efforts described in this proposal, and presenting these at our annual conference. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to guarantee access, resources and personnel (as the case may be) so that the maximum benefit can be achieved for the proposed project.

I look forward to working with you in this study.

Sincerely,



Chong H. Kim MD



**KENTUCKY ACADEMY OF
FAMILY PHYSICIANS**
STRONG MEDICINE FOR KENTUCKY

October 9, 2014

Roberto Cardarelli, DO, MPH, FAAFP

Professor, Department of Family & Community Medicine
Chief, Division of Community Medicine
Director, Kentucky Ambulatory Network
Co-Director, Community Engagement & Research Core, CCTS
University of Kentucky College of Medicine

Dear Dr. Cardarelli,

On behalf of the over 850 active practicing family physicians of the Kentucky Academy of Family Physicians, I am pleased to offer my support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

Many of my members have shared with me their frustration with dealing with patients that have been started on medication to treat symptom of chronic pain. There is a clear need for programmatic, team-based professional education in chronic pain management in our service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities we serve.

We would like to integrate this initiative with a project that we are currently working on with the Federation of State Medical Boards and the Kentucky Board of Medicine to educate primary care physicians about pain medication management. We are fully committed to our role in disseminating the activities that are developed through the efforts described in this proposal, and presenting these at our annual conference. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to guarantee access, resources and personnel (as the case may be) so that the maximum benefit can be achieved for the proposed project.

I look forward to working with you in this study.

Sincerely,

Gerry D. Stover, MS
Executive Vice President



WEST VIRGINIA ACADEMY OF
FAMILY PHYSICIANS
STRONG MEDICINE FOR WEST VIRGINIA

October 9, 2014

Roberto Cardarelli, DO, MPH, FAAFP
Professor, Department of Family & Community Medicine
Chief, Division of Community Medicine
Director, Kentucky Ambulatory Network
Co-Director, Community Engagement & Research Core, CCTS
University of Kentucky College of Medicine

Dear Dr. Cardarelli,

On behalf of the over 520 active practicing family physicians of the West Virginia Academy of Family Physicians, I am pleased to offer my support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

Many of my members have shared with me their frustration with dealing with patients that have been started on medication to treat symptom of chronic pain. There is a clear need for programmatic, team-based professional education in chronic pain management in our service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities we serve.

We would like to integrate this initiative with a project that we are currently working on with the Federation of State Medical Boards and the West Virginia Board of Medicine to educate primary care physicians about pain medication management. We are fully committed to our role in disseminating the activities that are developed through the efforts described in this proposal, and presenting these at our annual conference. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to guarantee access, resources and personnel (as the case may be) so that the maximum benefit can be achieved for the proposed project.

I look forward to working with you in this study.

Sincerely

Gerry D. Stover, MS
Executive Vice President

**KENTUCKY
PRIMARY CARE ASSOCIATION, INC.**

226 West Main Street
P. O. Box 751
Frankfort, KY . 40602-0751



October 8, 2014

Roberto Cardarelli, DO, MPH, FAAFP
Professor, Department of Family & Community Medicine
Chief, Division of Community Medicine
Director, Kentucky Ambulatory Network
Co-Director, Community Engagement & Research Core, CCTS
University of Kentucky College of Medicine
138 Leader Avenue
Lexington, KY 40506-9983

Dear Dr. Cardarelli,

On behalf of the Kentucky Primary Care Association, Inc., I am pleased to offer my support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

There is a clear need for programmatic, team-based professional education in chronic pain management in the Central Appalachian service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities our members' serve.

We are fully committed to our role in disseminating the activities that are developed through the efforts described in this proposal, and presenting these at our annual conference. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to guarantee access, resources and personnel (as the case may be) so that the maximum benefit can be achieved for the proposed project.

I look forward to working with you in this study.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. E. Smith", is written over the word "Sincerely,".

Joseph E. Smith
Executive Director



amta
american **massage therapy** association*

500 davis street, suite 900 | evanston, il 60201-4695 | toll free 877.905.2700 | fax 847.556.1436

info@amtamassage.org | www.amtamassage.org

October 3, 2014

Dr. Roberto Cardarelli
University of Kentucky College of Medicine
740 S. Limestone Street, K311
Lexington, KY 40536

Dear Dr. Cardarelli,

The American Massage Therapy Association (AMTA) is pleased to offer its support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and confirm our commitment to engage with you and the other collaborators on this important project through our chapters.

There is a clear need for programmatic, team-based professional education in chronic pain management in the region, and this proposal fills an important gap in efforts to address this critical problem in the communities served by it.

AMTA will work with our Kentucky and West Virginia chapters to disseminate information about the activities developed and assist them, as needed, should they coordinate presentations at their chapter meetings.

We look forward to working with you in this study and in improving understanding of other healthcare providers of the importance and value of massage therapy as an integrative approach to pain.

Sincerely,

Bill Brown
Executive Director

amta board of directors

President Nancy M. Porambo | President-Elect Jeff Smoot | Immediate Past President Winona F. Bontrager
Vice Presidents Kathie Lea, Nathan J. Nordstrom, Dolly Wallace | Members-at-Large John Lauren Combe, Chris Deery,
Glyn Desmond, S. Pualani Gillespie, Maureen P. Hooch, Joan Nichols | Executive Director Bill Brown



October 7, 2014

Dana King, MD, MS
Professor and Chair
Department of Family Medicine
West Virginia University

Dear Dr. Dana King,

On behalf of The Advanced Practice Congress of West Virginia, I am pleased to offer my support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

There is a clear need for programmatic, team-based professional education in chronic pain management in our service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities we serve.

We understand our role in disseminating the activities that are developed through the efforts described in this proposal, and presenting these resources through the communication channels available to us. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to provide resources and cooperation to help assure the success of the project.

I look forward to working with you in this program.

Sincerely,

Elizabeth Baldwin, MSN, RN CPNP-BC

Elizabeth Baldwin, MSN, RN, CPNP
Executive Chair of the APN Council
The Advanced Practice Congress of West Virginia
1007 Bigley Avenue, Suite 308
Charleston, WV 25302

UNIVERSITY OF PIKEVILLE

KENTUCKY COLLEGE OF OSTEOPATHIC MEDICINE

October 13, 2014

William T. Betz, DO, MBA
142 Sycamore Street
Pikeville, Kentucky, 41501

Dear Dr. Cardarelli,

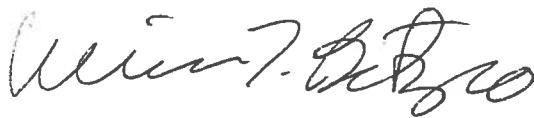
On behalf of the University of Pikeville - Kentucky College of Osteopathic Medicine, I am pleased to offer my support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

There is a clear need for programmatic, team-based professional education in chronic pain management in our service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities we serve. It is especially important to note this collaboration across state lines.

We are fully committed to our role in disseminating the activities that are developed through the efforts described in this proposal, and presenting these at our annual conference. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to guarantee access, resources and personnel (as the case may be) so that the maximum benefit can be achieved for the proposed project.

I look forward to working with you in this study.

Sincerely,



William T. Betz, DO, MBA
Senior Associate Dean for Osteopathic Education
Chair, Department of Family Medicine

The Leading University



of Central Appalachia



Appalachian Osteopathic Postgraduate Training Institute Consortium

October 9, 2014

147 Sycamore Street
Pikeville, Kentucky 41501

Dear Dr. Cardarelli,

On behalf of A-OPTIC, I am pleased to offer my support for the Central Appalachia Inter-Professional Pain Education Collaborative (CAIPEC) and our commitment to engage fully with you and the other collaborators on this important project.

There is a clear need for programmatic, team-based professional education in chronic pain management in our service area, and this proposal fills an important gap in our efforts to address this critical problem in the communities we serve.

We are fully committed to our role in disseminating the activities that are developed through the efforts described in this proposal, and presenting these at our annual conference. The resources we are provided will be appropriately allocated for the purposes to which they are intended, and we are happy to guarantee access, resources and personnel (as the case may be) so that the maximum benefit can be achieved for the proposed project.

I look forward to working with you in this study.

Sincerely,

A handwritten signature in black ink, appearing to read "John E. Rehmeyer".

John E. Rehmeyer, MA
A-OPTIC
Executive Director