

## Message from the Director

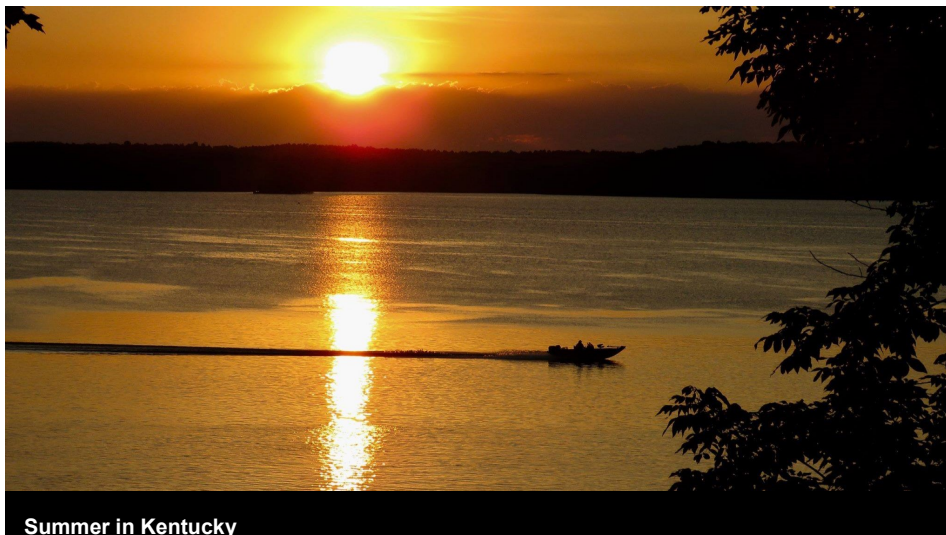
Welcome to the Summer issue of the CM&R newsletter! As I reflect on the content of this issue, what strikes me is the incredible collaboration across disciplines and colleges within the University of Kentucky and the partnerships *with* the communities. Since the last issue, our partners and investigators have been awarded grants from the National Institutes of Health and from a competitive intramural grant within the College of Medicine called the Value of Innovation to Implementation Program (VI2P). Moreover, we have submitted or partnered on 8 other intramural and extramural grants that are currently under review! We are very proud to be part of these teams but, more importantly, the translational and transdisciplinary nature of the programs. In fact, both of the awarded grants are focused on a devastating disease in Kentucky: Diabetes. This demonstrates the power of collaboration across departments and centers.

KAN has been guided since its inception by an advisory board to ensure that we stay focused on what is important to our patients and communities. I am grateful to our new board members, announced in this newsletter (p-6), who have agreed to serve in this capacity. Their contribution ensures that the work we do and partner on is “best in class”.

Again, I thank you for your interest in our Division of Community Medicine and the Kentucky Ambulatory Network.



Roberto Cardarelli, DO, MHA, MPH, FAAFP  
Director, KAN  
Professor and Chief of Community Medicine  
of Community Medicine



Summer in Kentucky

## In This Issue

- CAIPEC manuscript accepted
- TLC II Study Update
- NIH-funded Diabetes Project
- Pre-Diabetes Intervention Project
- Physician Opportunity: Cost-of-Care Conversations Interview
- Welcome new KAN board members!

**Central Appalachia Inter-Professional Pain Education Collaborative manuscript accepted for publication by the Journal of Patient-Centered Research and Reviews.**

**Title:** Improving Chronic Pain Management Processes in Primary Care Using Practice Facilitation and Quality Improvement: The Central Appalachia Inter-Professional Pain Education Collaborative (CAIREC)

**Authors:** Roberto Cardarelli, DO, MPH, FAAFP<sup>1</sup> Sarah Weatherford, MSc<sup>1</sup> Jennifer Schilling, MPH<sup>1</sup> Dana King, MD<sup>2</sup> Sue Workman, BSMS, CCRP<sup>2</sup>, Wade Rankin, DO, CAQSM<sup>1</sup>, Juanita Hughes, DO<sup>3</sup> Jonathan Piercy, MD, FACP<sup>4</sup> Amy Conley-Sallaz, MD<sup>5</sup> Melissa Zook, MD<sup>6</sup> Kendra Unger, MD, DABMA<sup>7</sup> Emma White<sup>8</sup> Barbara Astuto<sup>9</sup> and Bobbi Stover<sup>9</sup>

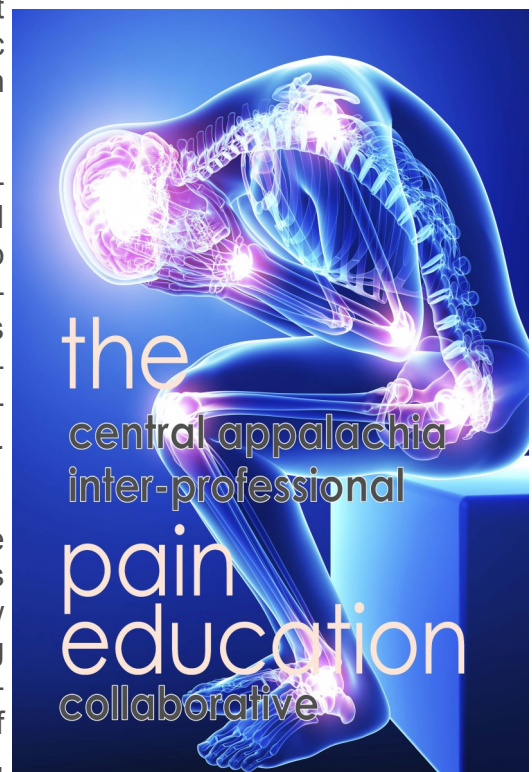
**ABSTRACT:**

**Purpose:** With the increasing burden of chronic pain and opioid use, provider shortages in Eastern Kentucky and West Virginia have experienced many challenges related to chronic pain management. This study tested a practice facilitator model in both academic and community clinics that selected and implemented best practice processes to better assist patients with chronic pain and increase the use of inter-disciplinary health care services.

**Methods:** Using a quasi-experimental design, a practice facilitator was assigned to each states' clinics and trained clinic teams in quality improvement methods to implement chronic pain tool(s) and workflow processes. Six hundred ninety five chart reviews of patients with chronic pain using opioids from eight randomly selected clinics in Eastern Appalachia were used to assess for changes in clinic processes.

**Results:** Statistically significant improvements were found in 10 out of 16 chronic pain best practice process measures. These included improvements in workflow implementation ( $p < .001$ ), and increases in urine drug screen test orders ( $p = 0.001$ ) and utilization of controlled medication agreements ( $p = 0.004$ ). In total, 7 of 8 clinics significantly improved in at least one, if not all, selected and implemented process measures.

**Conclusions:** Our findings indicate that practice facilitation, standardization of workflows and formation of structured clinical teams can improve processes of care in chronic pain management and facilitate the use of interdisciplinary services. Future studies are needed to assess long-term patient-centered outcomes that are a result of improved chronic pain processes of care.



## Terminate Lung Cancer II Study Update

With a grant from the AAMC and The Patrick and Catherine Weldon Donaghue Medical Research Foundation, and in partnership with St. Claire Regional Medical Center (SCRMC), Dr. Cardarelli and his team are implementing an educational curriculum aimed at reducing lung cancer rates through early screening and tobacco cessation in the rural region served by SCRMC. Professionals who serve the population are participating in a series of educational opportunities intended to create change in knowledge and attitudes toward lung cancer screening and tobacco cessation guidelines. In addition, 5 SCRMC primary care clinics are participating in a tailored implementation approach to increase screening and tobacco cessation counseling. The study will evaluate experiences and uptake of the education program and implement and monitor clinic processes and workflows. The research team anticipates an approximate 40% shift from late stage diagnosed lung cancers (Stage III/IV) to earlier stages (Stage I/II) based on the screening intervention efforts. Measured drivers for these histologic outcomes will be rates of Low Dose CT (LDCT) screening and orders for smoking cessation counseling at the clinic level.



Three of the five clinics participating in this project have begun implementation, and preliminary data are available from the first two of these clinics.

The first clinic, SCRMC's **Frenchburg clinic**, began implementation in September 2016. The team at this clinic has increased their smoking cessation documentation rate from 0% in September 2016 to 3.8% in February 2017 and have now hit 11.3% in the latest report as of June. Prior to this project, the Frenchburg clinic had a 1.1% rate of LDCTs ordered among eligible patients, this number has since increased to 8.3% as of June.

The second clinic to begin implementation was SCRMC's **Olive Hill clinic**, in February 2017. At baseline, the team at Olive Hill had a 1.7% rate of smoking cessation documentation and this rate has risen to 11.7% in our most recent June report. The Olive Hill team has almost doubled the percentage of LDCTs ordered among eligible patients, jumping from 5.7% at baseline to 11.1% in June!



TLC II Team:

Roberto Cardarelli, Principal Investigator

Anthony Weaver, Co-Investigator

Ashley Gibson, Practice Facilitator



## NIH-Funded Diabetes Project

Nancy Schoenberg, PhD with the University of Kentucky, Department of Behavioral Science, College of Medicine requested to collaborate with KAN to help identify primary care clinics in Kentucky to participate in a five year project entitled **Community to Clinic Navigation to Improve Diabetes Outcomes**. This project is funded by the National Institute of Diabetes and Digestive and Kidney Diseases. National Institutes of Health. Co-investigators on this project include: R. Cardarelli, R. Charnigo, L. Hieronymus, G. Mays, S. Westneat, and L. Larkey.



**Summary:** Reducing adverse outcomes from Type 2 Diabetes Mellitus (T2DM) requires optimal self-management and appropriate clinical care. Combining an evidence-based intervention to improve diabetes self-management with individually-tailored patient navigation to improve appropriate clinical care holds great promise. Clinic to Community Navigation (CCN) to Improve Diabetes Outcomes will recruit from and locate research activities in community-based settings to insure involvement of the most vulnerable, hardest to reach populations who may not be receiving regular health care and by leveraging Community Health Workers and Patient Navigators, who are essential and sustainable outreach workers in health care professional shortage areas.

**Background:** Nearly 29 million Americans (9.3% of the population) have type 2 Diabetes Mellitus (T2DM) and another 86 million are considered prediabetic, 20-30% of whom will develop diabetes within five years. T2DM disproportionately affects those from lower socioeconomic status (SES) and rural backgrounds. Appalachian residents represent an extreme version of this already vulnerable population, with rates of diabetes 46% higher than national averages. This community-engaged intervention addresses the two main mutable determinants of diabetes outcomes, self-management and formal management.

**Aims & Activities:** The study proposes to test the “Community to Clinic Navigation” (CCN) program, shown to be promising, feasible, and acceptable in a pilot study. The team will administer a 3 arm group randomized design including (1) Diabetes Self-management Program, DSMP only; (2) tailored Patient Navigation, PN only; and (3) the combined DSMP + PN: (CCN). Outcomes include biometrics (HbA1c, BMI, blood pressure, lipids, waist circumference); diabetes self-management and clinic attendance, as mediators of the primary outcomes; cost effectiveness and participant satisfaction. Approximately 1200 persons with diabetes will be recruited through churches and other community venues in Southern Kentucky. The project leverages sustainable assets available in most health disparity communities-- faith organizations, community centers, federally qualified health clinics, strong social ties, and talented local lay people who can be trained to educate and navigate those diagnosed with T2DM. Our sustained involvement in Appalachian Kentucky positions the team to appropriately and efficiently test this promising program with strong potential for future dissemination to other traditionally underserved environments.

The team is looking for clinical collaborators located in Appalachian Kentucky (most likely the Letcher, Harlan, Perry County area, but the investigators are open). Patients will receive evidence-based diabetes self-management education and/or navigation to the clinic. Clinical partners will be encouraged to provide input into their preferences for program implementation and research, a modest incentive, and have their patients receive state of the art management support free of charge, with minimal disruption. For more information, please contact Dr. Nancy Schoenberg, [nesch@uky.edu](mailto:nesch@uky.edu) or 859-323-8175.

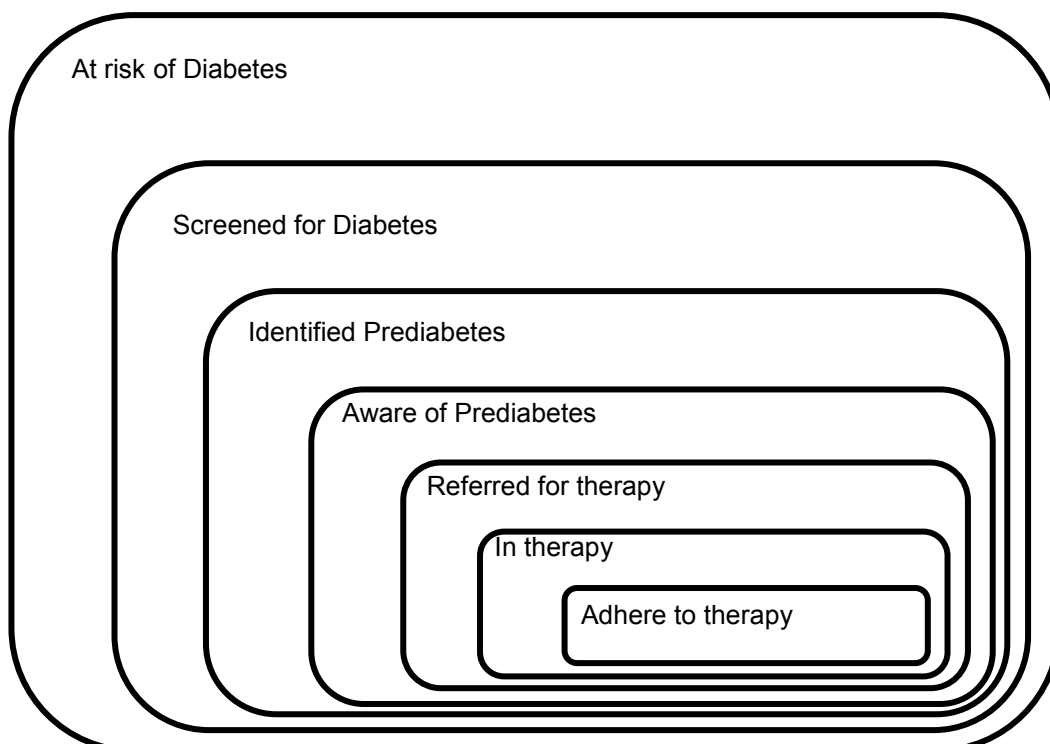
## JUST FUNDED!: Partnership for Identification and Primary-care based Enrollment to a Prevention Intervention for Diabetes (PIPE to Prevent Diabetes)

Kentucky's high diabetes prevalence of 13.4% ranks it fourth in the nation, although the state is on par with other states in the prevalence of prediabetes (35.5%). Prediabetes is an impaired blood sugar regulation that increases risk of developing diabetes, but is rarely recognized. This problem can be envisioned using a continuum of care paradigm (**Fig.**), where there are multiple opportunities to identify prediabetic patients and connect them to care.

**James Keck**, MD, MPH from University of Kentucky's Family and Community Medicine (UK-DFCM) department is teaming up with **Laura Hieronymus**, DNP, RN of the Barnstable Brown Diabetes Center to investigate methods for effective implementation of diabetes prevention services. Their project was recently awarded funding for an 18-month project through a newly offered collaborative grant initiative offered by the UK College of Medicine and coordinated by the Center for Health Services. The opportunity, called *the Value of Innovation to Implementation Program (VI2P)*, supports research aimed at developing, testing, or refining strategies to disseminate and implement evidence-based practices.

Their successful application allows Drs. Keck and Hieronymus to assess the impact of care management and population health management on promoting uptake of the evidence-based diabetes prevention program that is offered by the Barnstable Brown Diabetes Center.

Also included on the study team are Roberto Cardarelli, Jonathan Ballard and Karen Roper from UK-DFCM, as well as John Fowlkes and Shawn Crouch of the Barnstable Brown Diabetes Center.





## Research study on cost-of-care conversations with patients

Researchers in the Department of Communication at the University of Kentucky (Allison Gordon, Ph.D. and Nancy Harrington, Ph.D.) are studying physicians' experiences with cost-of-care conversations with their patients, particularly patients from vulnerable populations. We are looking for physicians who are willing to participate in a telephone interview to help us with this project.

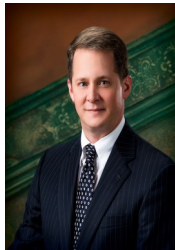
The interview will take approximately 30-45 minutes, and for your participation, we will provide you with a \$100.00 gift certificate from Amazon.com.

Your participation in this study is voluntary and confidential. If you are interested in participating in this study, please contact:

**Allison Gordon, Ph.D.**  
**Associate Professor**



## Welcome, New KAN Advisory Board Members!



**Chuck Thornbury, MD** is Chief Executive Officer & Medical Director of Medical Associates Southern KY in Glasgow, and current president of the KAFP.

**Larry Oteham, DO** is the Director of Medical Education, and the Family Medicine Residency Program Director at Lake Cumberland Medical Associates in Somerset.

**Brent Wright, MD** is the Associate Dean for Rural Health Innovations at University of Louisville, and Medical Director at T.J. Samson Community Hospital in Glasgow.

**Cheryl McClain, MD** is the Associate Chief Medical Officer for Primary Care at St. Claire Regional Medical Center in Morehead.

**Gerry Stover, MS** is the Executive Vice President of the Kentucky Academy of Family Physicians.

**Vicky McFall, BSN** (not pictured) is the Chief Executive Officer of Monroe County Medical Center in Tompkinsville.

# 2<sup>nd</sup> Annual Lung Cancer & Smoking Cessation Symposium

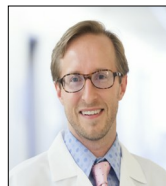
SAVE THE DATE

Center for Health,  
Education and Research  
316 W. 2nd Street., Room 102  
Morehead, KY 40351

September 22, 2017



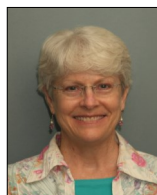
## UK Division of Community Medicine Team:



Faculty: Roberto Cardarelli, DO, MHA, MPH; Mary Sheppard, MD; Carol Hustedde, PhD James Keck, MD, MPH



Staff: Karen Roper, PhD; Linda Asher; Jennifer Schilling, MPH; Sarah Weatherford, MSc; Ashley Gibson, MS



Administrative Support: Madeline Slimack, Jackie King

# Get Engaged with KAN and the Division of Community Medicine

We often hear the question, “We are primary care, why should we be involved with research?” Our responses are always the same, “Because if we don’t do it, no one will create the knowledge and evidence we need to practice medicine that our patients and communities expect and deserve from us.”

Primary care providers have a vital role in advancing the knowledge of our professions. Practice-based research groups grew from the realization that much of the research that is done in tertiary medical centers has little applicability to the practice of outpatient and ambulatory medicine. KAN invites all its members to participate in research that will have little hindrance to your daily practice. **We welcome your ideas and engagement with the numerous resources and opportunities that we offer!**

## Contact Us

Give us a call for more information about our program and research.

### KAN/Division of Community Medicine

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Visit us on the web at  
[www.familymedicine.med.uky.edu/family-medicine-about-division-community-medicine](http://www.familymedicine.med.uky.edu/family-medicine-about-division-community-medicine)

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