



Applying Research to Optimize Care[®]

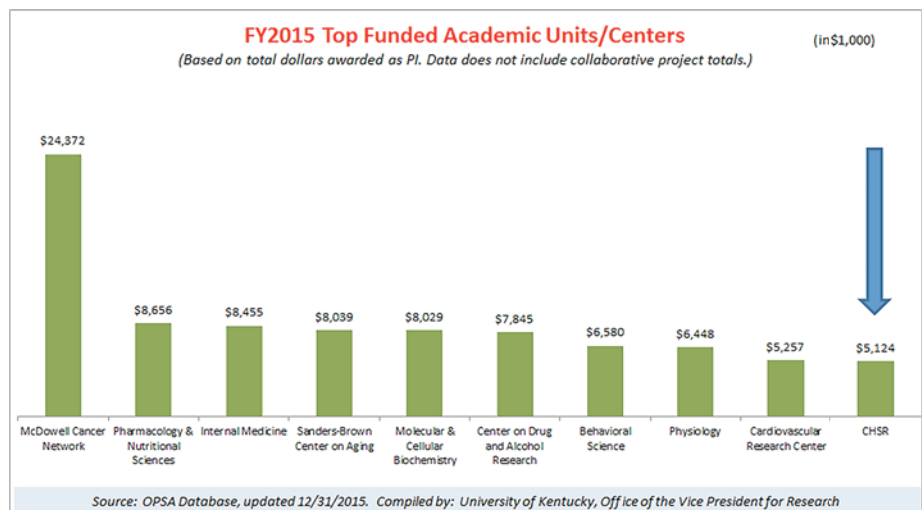
connect • catalyze • create

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CHSR is a Top Funded Center at UK

In the two short years since CHSR’s formation, the Center has attracted major research funding under the leadership of Drs. Mark Williams and Jing Li. CHSR’s latest funding highlights key areas in health services research, including implementation of an evidence-based medication reconciliation toolkit ([MARQUIS toolkit](#)) and the unconditional approval for the funding of Project ACHIEVE’s second phase extending through September 2018.



CHSR Director's Message

With establishment of the Center for Health Services Research in 2014 came a clear mandate—foster collaboration with the colleges and their departments at the University of Kentucky.

I can proudly proclaim that our team at the Center is doing exactly that! In this newsletter you can read



descriptions of how we served our colleagues to help them *apply research to optimize care*. While Project ACHIEVE funding was continued with unconditional approval from the Patient Centered Outcomes Research Institute (PCORI) and we received funding to participate in MARQUIS (Medication Reconciliation Quality Improvement Study), we are also pleased to report on numerous collaborations with local colleagues.

We worked with faculty from the Department of Family and Community Medicine to support three submissions for grant funding. Based on relationships previously established with the Kentucky Primary Care Association, we collaborated with the Boston Medical Center on another proposal to PCORI. This project will attempt to help primary care providers in Kentucky communities better manage patients with chronic pain and reduce inappropriate usage of opioids.

We are *connecting* with the remarkable resources at the University of Kentucky and across the state. These efforts are *catalyzing* projects and now *creating* publications and presentations at national meetings—some described in this issue of the newsletter. I look forward to future newsletters reporting more success in changing care delivery to improve care for the citizens of the Commonwealth of Kentucky and beyond!

Newly Funded Projects

CHSR has continued its active research agenda, advancing a number of new projects and building productive collaborations. Highlights from projects in process include:

Medication Reconciliation: Dr. Mark Williams will serve as a co-investigator on an Agency for Healthcare Research and Quality (AHRQ) funded medication reconciliation study implementing the MARQUIS toolkit, a mentored quality improvement implementation model intended to improve patient safety. This study will implement the model in 18 diverse hospitals, study the effect of the MARQUIS program on unintentional medication discrepancies, and rigorously evaluate the implementation by using the RE-AIM framework (Reach, Effectiveness, Adoption, Implementation, Maintenance). Dr. Williams also will serve as the mentor for implementation at UK HealthCare, as well as work closely with research colleagues at Harvard University on analysis and refinement of the toolkit.

Linking Persons Who Inject Drugs (PWID) Hospitalized with Infections into Addiction Treatment: Laura Fanucchi, MD, MPH, Assistant Professor at CHSR, was recently awarded pilot funding from the Dean's Office in the College of Medicine, as well as from the UK Center for Drug and Alcohol Research (CDAR). With the support of her mentoring team, Drs. Sharon Walsh and Michelle Lofwall (CDAR), and Mark Williams (CHSR), Dr. Fanucchi is conducting a prospective study among PWID. In this study, PWID who require lengthy courses of IV antibiotic therapy for infective endocarditis (IE), are being enrolled into a new collaborative residential addiction treatment program while continuing to receive IV antibiotic treatment. This allows patients to be discharged from the hospital instead of remaining for prolonged stays and not receiving optimal treatment for their addiction. These patients will be compared to those who do not enroll in the new program on key outcomes including: healthcare costs and utilization, completion of antibiotic treatment, substance use severity, and treatment acceptance.

CHSR Ongoing Projects

The Center for Health Services Research received **unconditional approval** to proceed with Phase 2 of Project ACHIEVE, extending the completion date to September 30, 2018, increasing the total contract to **\$15.5 million**.

The research team is starting Phase 2 by finalizing the survey instruments that will be administered to 12,000 patients, 7,000 caregivers, and 1,000 providers. Combining information from these surveys with data collected on site visits and analysis of data from CMS, the Project ACHIEVE team will evaluate the comparative effectiveness of multi-component care transition programs occurring across the U.S. and identify barriers to and facilitators of implementing transitional care efforts.

Dissemination

Long-term Antibiotic Use and PWID: Drs. Laura Fanucchi and Jing Li collaborated with the Division of Infectious Diseases on a recent publication, *“Perceptions and Practices of Physicians Regarding Outpatient Parenteral Antibiotic Therapy in Patients with a History of Intravenous Drug Use”* (in press: Journal of Hospital Medicine). Through a 14-item survey with multiple choice and open-ended response items, the study illustrates the extremely difficult and complex barriers present when treating this particular patient population. While there is variability, physicians believe that Outpatient Parenteral Antibiotic Therapy (OPAT) may be a feasible and effective medical option in PWID, if ancillary services are put in place and comorbid substance abuse disorder addressed.

Project ACHIEVE Dr. Glen Mays (Department of Health Management & Policy, Project ACHIEVE Co-Investigator) was an invited speaker to a special session, Evaluating Complex Public Health Interventions, at NIH’s 8th Annual Conference on the Science of Dissemination and Implementation in Health held on December 15-16, 2015 in Washington, DC. Dr. Mays’ presentation entitled *“Analytic Approaches for Complex Multi-Component Interventions”* provided a brief summary of the ACHIEVE Framework, and an overview of the design and the plan for Project ACHIEVE’s retrospective and prospective data analyses.

Project ACHIEVE Oral Abstract submitted to AcademyHealth’s Annual Research Meeting: Drs. Glen Mays, Jing Li, Arnold Stromberg, and Mark Williams recently submitted an oral presentation abstract to the AcademyHealth 2016 Annual Research Meeting to be held in Boston June 26-28, 2016. The abstract, entitled *“Variation in the Implementation of Hospital Care Transition Strategies: Institutional, Economic, and Community Factors”* focuses on survey results from 417 hospitals nationwide regarding transitional care strategies implemented at their facilities. A key finding of the study is that transitional care strategies are highly variable across hospitals and appear sensitive to resource availability and competitive pressures.

Project ACHIEVE: The first publication from Project ACHIEVE entitled *“Project ACHIEVE – Using Implementation Research to Guide the Evaluation of Transitional Care Effectiveness,”* was published in [BMC Health Services Research](#). This publication describes the fractional factorial study design used in this natural experiment observational study to specify comparators and estimate the individual and combined effects of key transitional care components. The Project ACHIEVE framework (modified from the consolidated framework for implementation research – CFIR) outlines a structured, phased approach to determine which transitional care service clusters are most effective in improving patient-centered outcomes in different at-risk subpopulations and in different healthcare contexts. The figure illustrates the Project ACHIEVE Model for Coordinated Care.

Collaborations

UK Family and Community Medicine

HRSA Primary Care Training Program: CHSR and the Office for Value and Innovation in Healthcare Delivery (OVIHD) provided expertise for a quality improvement (QI) curriculum and analytic support to the Department of Family and Community Medicine on two Health Resources and Services Administration (HRSA) proposals that were submitted in December 2015: *Primary Care Training and Enhancement (PCTE) Program* and *National Center for Transformative Oral Health Education in Primary Care*. Both proposals aim to strengthen the primary care workforce by supporting enhanced training for future primary care clinicians, teachers and researchers and promoting primary care practice, particularly in rural and underserved areas. CHSR and OVIHD will provide training to residents and faculty on performance improvement principles, tools and methods, improvement research design, and data management and analysis so they possess the skills to conduct QI projects needed to improve care delivery and patient outcomes.

PCORI Programmatic Trial – Transitional Care Management: The UK Department of Family and Community Medicine partnered with CHSR on the submission of a programmatic proposal to PCORI entitled *“Evaluating the Impact of Transitional Care Management (TCM) for Small to Medium-sized Primary Care Clinics on Patient-Centered Outcomes.”* Drs. Williams and Li were invited to be co-investigators on the project due to their extensive transitional care expertise. CHSR will also provide the practice facilitator training curriculum development and expertise on data management and tracking system development. The intent of this proposal is to implement an adaptable TCM process at small and medium-sized primary care practices that typically do not have internal resources for such programs. Facility readmission rates at 30-day and 60-day periods will be assessed as well as healthcare adherence and quality of life measures.

Boston Medical Center (BMC)

PCORI Programmatic Trial – Reducing Opioid Use: CHSR recently collaborated with the Boston Medical Center in the development and submission of a programmatic proposal to PCORI on a national, randomized comparative effectiveness trial entitled *“A Comparative Effectiveness Trial of Patient-Centered Interventions to Reduce Opioid Use and Improve Chronic Pain.”* The intervention package, TOPCARE (Transforming Opioid Prescribing in Primary Care), includes nurse care management, patient registry, academic detailing and electronic tools. Right now Kentucky is in the midst of an enormous opioid epidemic with heartbreaking consequences. We are experiencing record rates of opioid overdoses and deaths. Our clinics and practices statewide are scrambling to find ways to better support patients with chronic pain in light of soaring rates of prescription drug abuse. If funded, Drs. Williams and Li will work with the Kentucky Primary Care Association (KPCA) to implement the study at 6 Kentucky clinical practices to enable providers to help the patient beyond the prescriptive period and to effectively engage their patients in ongoing treatment.

CHSR Faculty & Staff Honors and Awards

Dr. Mark Williams was named to the Editorial Advisory Board of the *Joint Commission Journal on Quality and Patient Safety*. The Joint Commission Journal is peer-reviewed and provides both empirical studies and practical instructions on how to understand and implement interventions to improve patient safety and quality in the health care setting.

Dan Cleland, MS, CHSR Analytic Team Manager, has been selected as a technical expert reviewer by UK for proposals examining software systems to run strategic planning, student learning assessment, accreditation and periodic review of units.

Educational Efforts

Joint Class taught by CHSR and the College of Public Health

With support from an intramural University of Kentucky eLearning Innovation Initiative (eLII), Drs. Sarah Wackerbarth and Mark Williams co-taught a course entitled “The Role of Teamwork in Change,” designed to provide graduate students and health professionals with the skills to successfully facilitate teamwork and achieve sustainable change in healthcare systems. The curriculum utilized both lectures and on-line components to introduce the foundations of change management, key features of successful teams and factors that lead to team failures, as well as specific behaviors and communications that enhance effective team interaction. Students also undertook team-based projects at the Markey Cancer Center, Turfland UK HealthCare Clinic, Kentucky Clinic and UK Chandler Hospital. As the semester progressed, the teams made a series of work-in-progress presentations and received technical support from OVIHD health systems engineers and quality improvement specialists. One team’s project focused on analysis of transportation needs of Turfland Clinic patients. The student team’s efforts facilitated the relocation of a city bus stop to better meet patients’ needs. While the Fall 2015 cohort was comprised of students enrolled in the Masters of Health Administration (MHA) and Masters of Public Health (MPH) programs, the goal is to extend the course offering to other colleges to provide an interdisciplinary experience.



What We Are Reading: Be sure to check out our monthly series regarding key messages from recent studies focused on health services research. To view synopses of recent articles reviewed, click here:

<https://chsr.med.uky.edu/chsr-what-were-reading-now>

CHSR Continues to Grow!

CHSR Membership

As part of CHSR’s vision, we seek to leverage collaborations throughout the UK community and beyond in order to advance the science of health care delivery and improve population health by transforming and optimizing care. We have recently expanded our partnership to include three new members:

Jarod T. Giger
Assistant Professor
College of Social Work

Elizabeth Salt
Associate Professor
College of Nursing

Aaron Yelowitz
Associate Professor
College of Business

Dr. Giger is working with CHSR Analytical Team members Jane Guo, PhD, Statistician, and Andy Kelly, MS, Data Research Analyst, on testing an ecological, relationship-based model of children’s subjective well being. The team is developing multilevel models using data from Children’s Worlds, an international survey of children’s well being, with samples of 9 to 13-year-old children from 14 countries.

Obtaining Membership

Please click here to learn more about membership guidelines:

<http://chsr.med.uky.edu/chsr-membership-guidelines>

Looking Ahead: CHSR Strategic Planning

As a new Center, CHSR recently initiated our strategic planning process. As part of this comprehensive process and to most effectively plan for the future, CHSR leadership has undertaken a number of activities:

1) **Bret Anderson, Lean Systems Program Toyota Executive in Residence**, was consulted to facilitate strategic planning meetings.

2) Two **SWOT** (Strengths, Weaknesses, Opportunities, and Threats) analyses were conducted to examine internal and external factors that could impact the future of CHSR. These analyses included information provided by Center staff and the Internal Advisory Board, with guidance from Mr. Anderson.

3) **HSR survey**: The Center recently conducted a campus wide survey of health services research activities across the UK campus. We hope to gain an understanding of the UK community's familiarity with CHSR and our functions. Major goals were to query faculty on their research topics and funding sources, determine their perspectives on UK's strengths in HSR and the areas that need improvement, identify their needs for research support to enhance funding submissions and the conduct of projects, and to elicit their ideas on how CHSR might better serve the University community. Surveys were completed by 243 respondents.

4) A **Strategic Planning Retreat** will be held on April 8, 2016 in which data generated from the two SWOT analyses and the HSR survey will be shared and discussed. Attendees will assist in developing the Center's first 5-year strategic plan.

Recent Seminars and Lectures

December 15, 2015	Jeffrey Ebersole , PhD, College of Dentistry "Improving Dental Care Across Kentucky: The Role of Health Services Research"
January 8, 2016	David Ballard , MD, PhD, MSPH, FACP, Baylor Scott & White Health Care "Health Care Quality Improvement: The Baylor Scott & White Health Experience"
February 16, 2016	Donna K. Arnett , PhD, MSPH, Dean, College of Public Health "Intersection of Workplace Wellness and Population Health"
March 22, 2016	AcademyHealth Panel Student Chapter , University of Kentucky

Upcoming Seminars and Lectures

April 29, 2016 MN 563 12:00 - 1:00pm	Victor Montori , MD Center for Clinical and Translational Science Mayo Clinic
May 17, 2016 MN 463 12:00 - 1:00pm	GQ Zhang , PhD Director of Institute of Biomedical Informatics University of Kentucky
June 14, 2016 MN 563 12:00 - 1:00pm	Ty Borders , PhD College of Public Health University of Kentucky
July 29, 2016 HG 611 12:00 - 1:00pm	Jean Kutner , MD, MHSP General Internal Medicine, Geriatric Medicine, and Health Care Policy and Research University of Colorado School of Medicine

CHSR Analytics

CHSR Offers Workshop on SAS

A workshop on SAS (Statistical Analysis System) was presented by CHSR statistician, Dr. Jing (Jane) Guo, on January 29th at the Quantitative Initiative for Policy and Social Research 2016 Winter Software Festival. Topics covered at the workshop included data management, statistical analysis and writing code efficiently. This event was open to all university students and staff. If you have suggestions for future trainings related to SAS, please contact Jane at jgu232@uky.edu.

The [CHSR Analytics Team](#) offers broad-based technical support to stakeholders across UK to meet their research and operational needs. This support includes data collection and management, extraction of data from clinical data management systems, survey development, program evaluation, study design, methodology, statistical analysis, and dashboard design among other areas. To learn more about our analytical support services or to submit a request, please go to <http://chsr.med.uky.edu/chsr-analytics>.

CHSR Analytics Team Wins Award

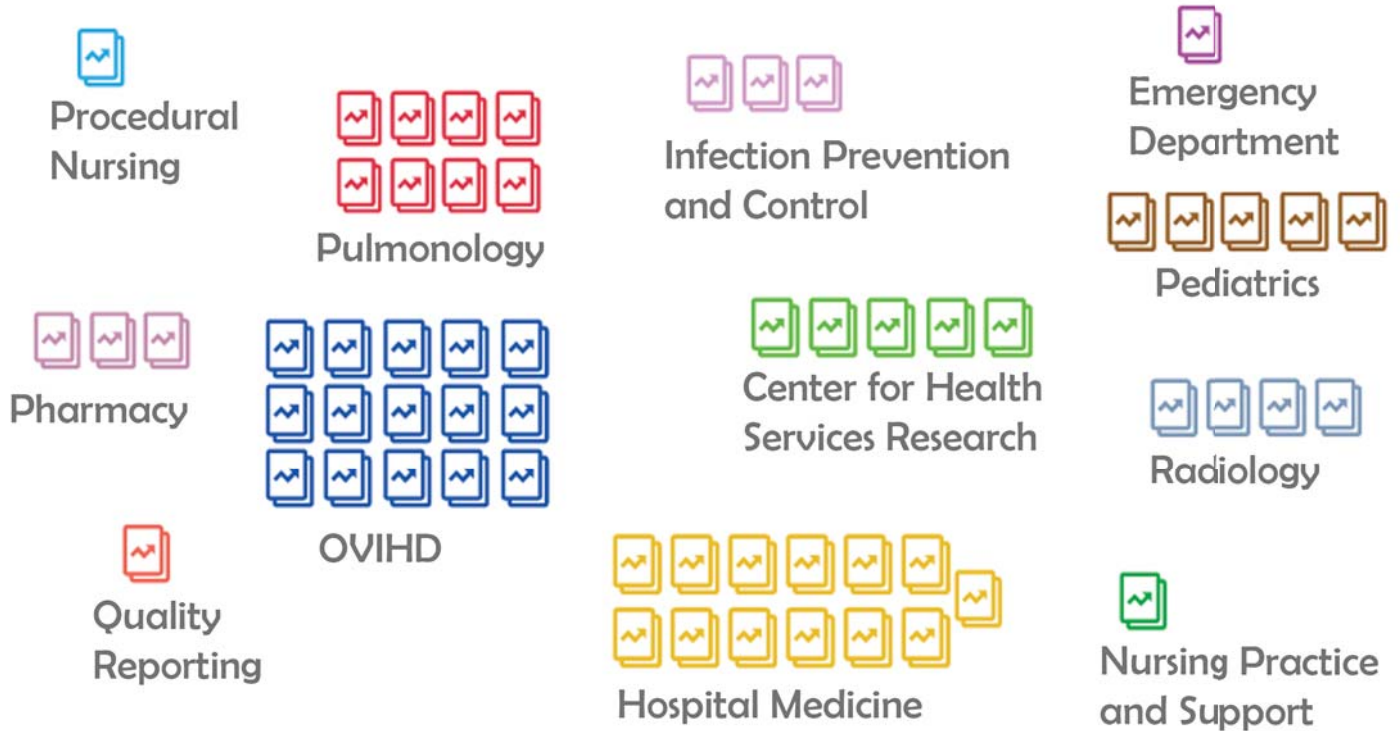
The CHSR Analytics Team attended the “Data! Fostering Health Innovation in Kentucky and Ohio 2015” conference in October. This event featured speakers such as Niall Brennan, Chief Data Officer at the Centers for Medicare and Medicaid Services (CMS); UK’s own Dr. Glen Mays; and a variety of public health innovators in government and non-profits from the area. The CHSR Analytics Team won third place in the infographic poster competition for their poster “Changes in Affordable Care Act Opinions and Outcomes Across Kentucky – 2010-2014.”

The CHSR Analytics Team’s poster is available online [here](#).

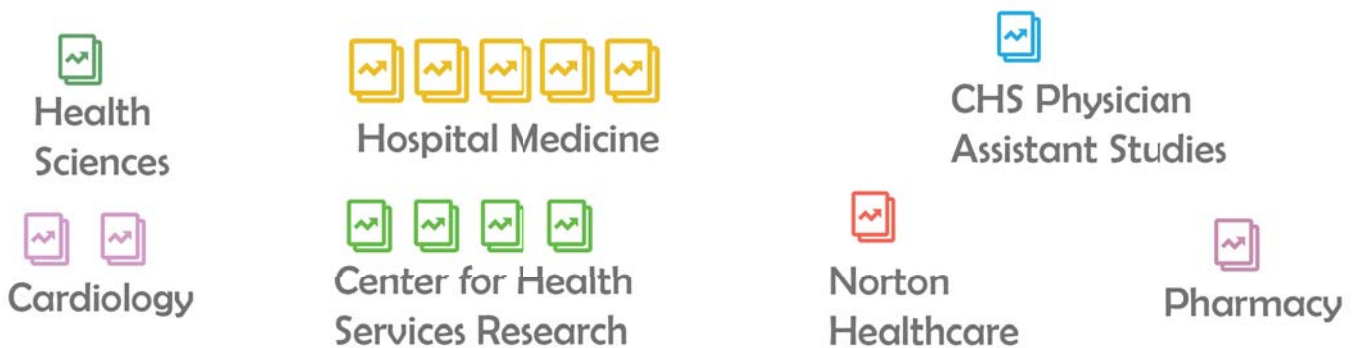


CHSR Analytics Team Supports UK Research and Operations

Non-Research (Operational and Quality Improvement) Requests Completed By Area Between 10/1/2015 and 1/31/2016



Research Requests Completed By Area Between 10/1/2015 and 1/31/2016



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