Articles in leading newspapers and prestigious medical journals proclaim the need to transform health care to deliver better value. This imperative arises from both patient-centered and financial perspectives. Historically, the American health care system has not focused on delivering patient-centered care, and 15 years have elapsed since the Institute of Medicine identified patient-centered care as one of the six aims of quality in its pioneering 2001 report of Crossing the Quality Chasm: A New Health System for the 21st Century. And, all acknowledge that the U.S. cannot afford continued unfettered increases in health care costs. In response, the largest insurer in the country, the Centers for Medicare & Medicaid Services (CMS), is rapidly shifting to paying for value instead of volume. This is exemplified in efforts to foster development of Accountable Care Organizations (ACOs) and implementation of MACRA (Medicare Access & CHIP Reauthorization Act). MACRA repealed the despised SGR (Sustainable Growth Rate) and replaced it with a new payment approach that rewards physicians for the quality and efficiency of their care delivery as well as outcomes, not just volume of services.

Here at UK HealthCare, our team in the Center for Health Services Research built the Office for Value & Innovation in Healthcare Delivery (OVIHD) and DASC (Data, Analytics and Statistical Core) as integral components of our Transformation Triangle. By partnering data analysts from DASC with OVIHD's experts in Quality Improvement and Process Engineering, we “EQUIPE” clinicians with the data, expertise and support to transform health care delivery. This approach engages the true frontline experts in care delivery—clinicians (e.g., nurses, pharmacists, physicians)—to improve quality.

Some may wonder, why is a research center “meddling with operations” instead of focusing exclusively on pursuit of grants and publishing scholarly articles. The Center’s mission, applying research to optimize care©, guides our team’s efforts, and the definition of health services research exemplifies our capabilities – “a multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviors affect access to healthcare, the quality and cost of health care, and ultimately our health and well-being”. (AcademyHealth) The main goal of health services research is “to identify the most effective ways to organize, manage, finance, and deliver high...
Transforming UK Health Care (cont.)

quality care; reduce medical errors; and improve patient safety.” (AHRQ) Consequently, the Center for Health Services Research is a UK “Board of Trustees approved, campus-wide, interdisciplinary research center focused on creating, testing and scaling next generation solutions for health care delivery to improve both the efficiency and effectiveness of healthcare delivered within the UK HealthCare System.”

One of my responsibilities is to “mobilize multi-disciplinary teams of researchers and health professionals to design, implement, and translate studies that produce new knowledge on how to improve the quality and safety of care, reduce costs, and improve population health through health care delivery innovations.” The Transformation Triangle represents our team’s approach to integrate the necessary people and skills to identify, implement and evaluate interventions to optimize care operations. From a personal perspective, I came to UK because it offered the remarkable opportunity to partner with amazingly collaborative people to figure out how to improve patient-centered care; the prospect of applying novel approaches to optimize care for the citizens of the Commonwealth and beyond. For this, the Center for Health Services Research is grateful to the University of Kentucky and the vision and support of Mike Karpf, MD.

The Center is undertaking specific strategies to achieve its goals. These strategies in our original proposal include:

- Undertake, facilitate and coordinate inter-professional collaborative research aimed at identifying optimal methods to deliver high value health care rationally.

  We are doing this with implementation and evaluation of the Interprofessional Team Innovation Model (ITIM) that fosters teamwork on hospital floors to improve the quality and efficiency of patient-centered care. Notably, Lisa Thornsberry, MSN, RN and Preetham Talari, MD presented the successful results of this initiative at the Annual Vizient Clinical Connections Meeting.

- Provide leadership in the science of health care delivery and guidance across the University of Kentucky while engaging faculty and staff from relevant Colleges.

  Faculty and staff in the Center for Health Services Research are now leading the Tracking & Evaluation Core for the recently re-funded Center for Clinical & Translational Sciences (CCTS). Collaborating with faculty from the Colleges of Communication & Information, Arts & Sciences, Public Health and Medicine we continue to carry out the $15.5 million contract from PCORI for Project ACHIEVE.

- Provide the expertise and training needed for UK HealthCare® to become a learning health system.

  A major undertaking of the Office for Value & Innovation in Healthcare Delivery (OVIHD) is education of UK Healthcare staff and clinicians in the FOCUS-PDSA approach to quality improvement. Working with Sara Wackerbarth, PhD from the College of Public Health, the Center supported development of a novel course—CPH-755: Leading Change with Healthcare Teams—which is a core course for the new Graduate Certificate in Improving Healthcare Value. Students taking the course learn this methodology and apply it while learning best practices in teamwork project efforts.

As you read in this newsletter about the continued accomplishments of our team-based Center, I hope you will join me in congratulating our marvelous staff and faculty in their terrific efforts to connect the remarkable resources at the University of Kentucky to catalyze novel projects and create high value care for the patients we serve.

Mark V. Williams, MD, FACP, MHM
Director, Center for HSR
Chief Transformation & Learning Officer
UK HealthCare
Jean Edward, PhD, RN, CHPE is an Assistant Professor in the Center for Health Services Research, holding a joint appointment in the Colleges of Medicine and Nursing. Dr. Edward will be presenting her paper titled, “Examining the Impact of Health Literacy and Health Insurance Literacy on Healthcare Access for Hispanics” at the American Public Health Association’s (APHA) Annual Meeting and Expo on October 31st in Denver Colorado. She will also be accepting the 2016 Public Health Nursing Section, Junior Investigator Award at APHA.

The Pavilion A 9th Floor, Acute Progressive Unit (pictured right) was recognized as a Patient Experience Award winner for the fourth quarter of fiscal year 2016. The team achieved results in the top quartile among UHC peers with results indicative of our patients’ perceptions of an outstanding experience. This is the highest score a Medicine Service has ever received at UK. Since the unit went live in May 2016, OVIHD has facilitated use of the ITIM (Interprofessional Teamwork Innovation Model) Rounding Method to improve communication among patients, doctors, nurses, pharmacists, and care managers.

The Second Annual In Person Workshop for Project ACHIEVE was held in Dallas, TX on September 15th. In attendance were the Stakeholder Advisory Group, Scientific Advisory Committee and Research Team to discuss the accomplishments from the first year, review potential manuscript ideas, non-traditional dissemination outlets, and evaluate the conceptual framework. Visit the Project Achieve website for more information.

The CHSR and OVIHD participated at the Graduate Medical Education (GME) Orientation Booth Fair on July 20, 2016 and displayed the support services available to residents to assist them with health services research and quality improvement projects. The brochure distributed at the booth fair can be found here.
What We Are Reading

Since September 2015, the staff at the Center have carefully reviewed recent health services research publications and identified three important articles on a monthly basis. We then summarize these articles identifying key issues and findings. These summaries are widely distributed to CHSR members and colleagues, aiming to keep our audience up-to-date on publications that are relevant to health services researchers and health policymakers. These article summaries can be found on the CHSR website.

Talari, Thornsberry present at Vizient Conference

Preetham Talari MD, FACP, FHM, Assistant Professor of Medicine in the Division of Hospital Medicine and Lisa Thornsberry, MSN, RN, CNML (Nursing Division Director), were selected to speak at the 2016 Vizient Clinical Connections Summit National Conference – “The Future Awakens,” held at the Hyatt Regency in Dallas, TX on September 28-30. They showed research on Project BOOST (Better Outcomes by Optimizing Safe Transitions) efforts at UK Healthcare with a special focus on Interprofessional Teamwork Innovation Model (ITIM©). The audience at the conference was very interested in learning the methodology, impact and successful use of ITIM© on a Hospital Medicine unit in support of Project BOOST implementation.

Staff Updates

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<td>Shawna Greenwell</td>
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CHSR and KPCA Study Multiple Chronic Conditions through My Life, My Healthcare Study

A Collaboration with Mayo Clinic

Multiple chronic conditions (MCC), affects 1 in 4 Americans – 3 in 4 of those 65 and older. These patients must spend a great deal of time and energy on healthcare. While healthcare should relieve suffering and alleviate burden, it sometimes makes demands of these patients that are, in fact, burdensome. Patients must invest capacity - time, emotion, and attention - to do the work of being a patient, which competes with other important tasks in their lives.

Current healthcare for patients with MCC rarely (a) assesses the available capacity patients have to do all the work they have been asked to do, (b) prioritizes interventions based on patients’ capacity, or (c) identifies when patients require additional support. Ultimately, this leads to treatment plans that do not fit the values, preferences, and context of patients and nonadherence ensues. For patients with MCC, a shift in practice is required: one that focuses on each patient’s health situation and on the limited capacity patients have to advance their health situation, while still pursuing joyful lives.

The ICAN Discussion Aid, developed by the research team at Mayo Clinic’s Knowledge and Evaluation Research (KER) Unit, is an intervention to support this different practice. ICAN helps to explicitly consider the relationship between the patient’s life circumstances, healthcare goals, the work patients are asked to do, and their capacity to enact it. Informed with evidence about the patient’s life, healthcare teams are better able to co-create treatment plans that are considerate of each patient’s context. This innovative intervention is an application of Minimally Disruptive Medicine (MDM), declared by the BMJ as one of the most important new ideas in medicine in the last 20 years. The My Life, My Healthcare study is funded by the Gordon & Betty Moore Foundation, and will use a mixed methods, cluster-randomized trial design to test ICAN’s feasibility and efficacy on a much larger scale.

For patients with multiple chronic conditions, a shift in practice is required: one that focuses on each patient’s health situation and on the limited capacity patients have to advance their health situation, while still pursuing joyful lives.
Jean Edward, PhD, RN, CHPE

Dr. Edward is an Assistant Professor at the Center for Health Services Research, holding a joint appointment in the Colleges of Medicine and Nursing. Prior to her position at the CHSR, she was an assistant professor at the College of Nursing and Health Sciences at the University of Massachusetts Boston. Dr. Edward’s areas of research expertise include healthcare access disparities, social determinants of health, healthcare reform, health insurance literacy, immigrant health and Geographic Information Systems.

Dr. Edward received her BS in Nursing from Bellarmine University, a Certificate in Health Professions Education from the University of Louisville, and a Doctorate in Nursing from the University of Louisville.

Brittany Smalls, PhD, MHSA

Dr. Smalls is an Assistant Professor in the Center for Health Services Research, Department of Internal Medicine at the University of Kentucky. Before coming to CHSR, she was Senior Project Manager at Brigham and Women’s Hospital’s Center for Surgery and Public Health and a member of the faculty at Massachusetts College of Pharmacy and Health Sciences.

Dr. Smalls has earned her Bachelor of Science in Anthropology from the College of Charleston, a Master’s in Health Services Administration from Strayer University, and a doctorate in Health and Rehabilitation Science with a concentration in Health Services Research from the Medical University of South Carolina.

Hilary Surratt, PhD

Dr. Surratt is an Associate Professor in the Center for Health Services Research, Department of Internal Medicine at the University of Kentucky. Before coming to CHSR, she was Professor and Co-Director of the Center for Applied Research on Substance Use and Health Disparities at Nova Southeastern University in Fort Lauderdale, Florida. She also maintains an affiliation as a Guest Professor in the Department of Psychiatry at the Federal University of Rio Grande do Sul in Porto Alegre, Brazil.

Dr. Surratt obtained her BS in Psychology from the University of Florida, an MA in Sociology/Latin American Studies from the University of Florida, and a Doctorate in Psychology from the Graduate School & University Center, City University of New York.
The Center and DASC have fully executed a professional services agreement to support research needs of the Norton Neuroscience Institute at Norton Healthcare in Louisville. DASC will be supporting a multi-center research project for which Gabriel Martz, MD of Norton is a principal investigator. This exciting connection demonstrates CHSR’s ability to catalyze research by enabling collaborative efforts of physician scientists and highly specialized support staff across departments and organizations.

The DASC team has continued growing its analytic support across UKHC, UK, and external partners. To better enable the UKHC enterprise to place the correct information in the hands of the people who need it, DASC has worked with several other groups to aid in the implementation of a new Enterprise Data Warehouse. This effort will allow DASC to scale its efforts, standardize measures, better collaborate, provide self-service automation and accelerate our responsiveness to the needs of UKHC.

To assist in leveraging the vast expertise across UKHC staff, DASC has implemented an Analytics Collaboration bi-weekly meeting bringing together analytical staff from Finance, IT, CCTS, Biomedical Informatics, Quality Reporting, KMSF, Markey Cancer Center, and Radiology. During these meetings, those doing the data and reporting work across the enterprise are able to connect to each other and discuss the best ways to coordinate, collaborate, and advance the capabilities of the enterprise.

The CHSR Data, Analytics, and Statistical Core 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 visit our website.

“This exciting connection demonstrates CHSR’s ability to catalyze research by enabling collaborative efforts of physician scientists and highly specialized support staff across departments and organizations.”
HSR Seed Grant Research Program

CHSR is pleased to announce the establishment of its Seed Grant Research Program, which will be formally opened for submission in October, 2016. The Seed Grant mechanism will provide resources to support small grants, including pilot or feasibility studies, focused on advancing the science of health delivery and HSR. The goal of the Seed Grant research program is to provide support for early-stage faculty-level investigators to develop collaborative HSR projects that will advance their careers as independent scholars in HSR. We are enthusiastic about undertaking this new program, which will be synergistic with the highly successful pilot grant program of UK’s Center for Clinical and Translational Science. Please watch for the Request for Applications on the CHSR website in October.

Proposal Development

NIH R21 Proposal Submission

In September CHSR led an R21 proposal submission to the National Institutes of Health to examine the uptake of newly implemented syringe exchange programs (SEPs) among people who inject drugs (PWID) in rural Appalachian Kentucky. CHSR collaborated with the College of Social Work, and the Clark, Knox, and Pike County Health Departments to develop the application focused on a highly vulnerable and understudied population of rural PWID.

The recent emergence of SEPs in rural Kentucky is tied to the entrenched prescription opioid epidemic that has permeated the region for the past 15 years. Serious health consequences associated with opioid injection are at crisis levels in Kentucky, and a recent analysis by the CDC identified 8 counties in Appalachian KY as among the nation’s top 10 most vulnerable to the rapid dissemination of HIV and HCV among PWID.

Serious health consequences associated with opioid injection are at crisis levels in Kentucky, and a recent analysis by the CDC identified 8 counties in Appalachian KY as among the nation’s top 10 most vulnerable to the rapid dissemination of HIV and HCV among PWID.

The recent initiation of SEPs in this rural, resource poor area provides a unique opportunity to examine social drivers impacting uptake of an evidence-based structural level HIV prevention intervention among rural PWID, and to develop complementary intervention strategies for enhancing SEP utilization in this population.
In response to Center for Medicare and Medicaid Services (CMS) Accountable Health Communities opportunity, the CHSR, in collaboration with the Kentucky Primary Care Association (KPCA), developed the Kentucky Consortium for Accountable Health Communities (KC-AHC) to reach the most vulnerable community-dwelling beneficiaries in the Commonwealth of Kentucky. The KC-AHC targets a diverse range of economically depressed and medically underserved geographic areas in Kentucky including 27 counties in rural Appalachia and specific neighborhoods in Jefferson County/Louisville. The KC-AHC proposes to address a number of important service gaps in Kentucky, including the absence of a standardized system to universally screen community-dwelling Medicare and Medicaid beneficiaries to identify health-related social needs that can be addressed by connecting beneficiaries to targeted services. We aim to determine whether providing a combination of tailored community service referrals and navigation services at the individual beneficiary level, as well as clinical partner alignment at the community level, impacts patient outcomes, health care utilization and costs.

Other partners include Appalachian Regional Healthcare, Norton Healthcare, Kentucky Homeplace, Kindred Healthcare, and Community Action Agencies. The proposed work also received support from Managed Care Organizations, Area Development Districts, Kentucky Health Department Association, Kentucky Highlands Investment Corporation, and Shaping Our Appalachian Area (SOAR). The proposal is currently under CMS’ review.

Poised by the early success of Project BOOST implementation and Inter-professional Teamwork Innovation Model (ITIM©) at UK HealthCare, the CHSR, collaborated with Northwestern University to propose the development, implementation, and assessment of an inter-professional team-based learning model (ITIM), on hospital general medical and surgical units using simulation-based mastery learning (SBML) to confirm attainment of skills.

The training will incorporate TeamSTEPPS training content and structured communication tools, and each simulation will include pre-briefing, simulation-based scenario, and debriefing structure/process, while distinguishing among levels of proficiency from novice to expert. The proposed training model is conceptually rooted in theories of teamwork and group dynamics. Anticipated product outputs include a validated inter-professional team-based learning training program using simulation mastery-based learning (ITIM-SBML). The project team will incorporate this into an Implementation Guide which will include key components and practice tips for implementing ITIM at other organizations, especially military-based institutions.

This proposal submission included UK faculty from the colleges of medicine, nursing, pharmacy, and arts and sciences. The programmatic review will occur in Spring 2017.
CHSR-OVIHD Collaborate on Hybrid Course Model

Medical and health services education must change to facilitate delivery system reform and assist health systems in delivering high value care. Health care providers need to be taught new knowledge and skills in quality improvement (QI) and increasing efficiency to deliver care at equal or higher quality and lower cost. At the UK Center for Health Services Research (CHSR), we are developing innovative “hybrid” approaches that teach students in health professions colleges through utilization of multiple education modalities to train them on how to work effectively on teams, how to coordinate care, and how to apply systems thinking and re-engineering to health care delivery. Partnering with the Colleges of Health Sciences and Public Health, the CHSR’s OVIHD (Office for Value and Innovation in healthcare delivery) has been part of curriculum development and course delivery for PAS645 — Physician Assistants Masters Project and students pursuing the graduate certificate in Improving Healthcare Value, CPH755 —Leading Change with Healthcare Teams.

Driven by our efforts to spread training in the use of continuous quality improvement tools, our faculty and OVIHD QI experts are designing these hybrid courses by incorporating real world cases with coaching students on actual projects aimed at improving healthcare delivery. Additionally, we started prototyping on-line Performance Improvement (PI) education modules. Our vision is to design, implement and evaluate an innovative course delivery for students that allows them the opportunity to enhance their professional skills in an interactive learning environment. The learning platform incorporates web-based instruction with interactive classroom sessions as modular components of the course.

If today you have improved outcomes without escalating cost, you have succeeded. If today, you have delivered equally good outcomes more efficiently, you have succeeded. If today, you didn’t do one of those two things, you have failed. —Michael Porter, Co-author of Redefining Health Care and Professor at The Institute for Strategy and Competitiveness, Harvard Business School

These modules provide students the opportunity to learn UK HealthCare’s approach to problem solving known as FOCUS-PDSA, a systematic approach to identifying, solving and preventing a problem from reoccurring. The learning modules are constructed to provide a step-by-step tutorial and complement OVIHD’s PI in-class training. Students will gain a theoretical understanding of concepts through online lectures, which will allow for highly interactive hands-on learning opportunities in-class to reinforce key concepts; i.e., the “flipped” class approach. The courses are constructed to utilize a

FOCUS
1. find
2. organize
3. clarify
4. understand
5. select

Plan Do Act Study
case study providing each participant the opportunity to work in a team setting and receive coaching from OVIHD members.

During classes, students receive timely and constructive feedback on applying the concepts they have learned. Later on, these students will apply learned knowledge and complete a project at UK HealthCare. Projects for 2016-2017 include:
1. Internal Medicine Clinic Patient Throughput
2. Cardiovascular Clinic Patient Throughput
3. OR 1ST Case Starts
4. Endoscopy Supplies
5. MRI Testing Patient Throughput
6. Diabetes Management Retinopathy (Moorehead location)
7. Radiology Call-Backs
8. Endoscopy 1st Case Starts
9. Transplant Clinic Patient Throughput
10. Patient Transfers

CCTS Tracking and Evaluation

The CHSR was recently selected to direct the Tracking & Evaluation Core of UK’s Center for Clinical and Translational Science (CCTS). The CCTS champions innovation across the spectrum of clinical and translational research, and educates the translational workforce of the future.

Tracking & Evaluation by the CHSR combines formative and summative evaluation techniques, and utilizes mixed methods approaches that incorporate both traditional and translational metrics. CHSR is engaged with CCTS Core Directors and leadership to develop component-specific evaluation plans and timelines, and to select key metrics and qualitative process measures to examine progress and impact. Our robust metrics-based evaluation will allow us to examine short-term impacts of the CCTS and to examine the collective or synergistic impact of CCTS hub functions and complex activities.

Annual Report

The CHSR published its 2015-2016 Annual Report in August 2016. The report is available on our website.

CHSR Seminar Series

RECENT SEMINARS

Victor Montori, MD
April 29, 2016
“Minimally Disruptive Medicine”

Jean Kutner, MD, MSPH
July 29, 2016
“Palliative Care as High Value Health Care: Evidence and Opportunities”

Guiseppe “Joe” Labianca, Ph.D.
September 20, 2016
“Utilizing Big Data and Social Network Analysis for Organization Design and Restructuring”

Mary D. Naylor, Ph.D., RN, FAAN
October 21, 2016
“Transitional Care Model: A Journey from Evidence to Impact”

James P. Ziliak, Ph.D.
November 15, 2016
“Kentucky Research Data Center”
Professional Development and Training for CHSR Faculty and Staff

The Center is adamant about developing a positive work environment while providing faculty and staff the opportunity to strengthen job performance and build leadership capabilities, as well as motivate professional and personal growth. Professional development and training is offered to all UK employees. We at the Center have been taking advantage of this opportunity and have invited training specialists from UK's Training and Development Department to come and conduct trainings that will promote professional growth and enhance teamwork.

We know that one key factor enabling organizations to become successful and sustainable is the high-performance work team. During the summer of 2016, the Center worked with the training and development department to provide team building workshops that we could do as a group to enrich our teamwork and communication skills. As a team, we have partaken in the following workshops offered by UK: FISH!, CSI Small Town Kentucky, and Teamwork in a Changing Workplace.

In addition to the team building workshops, our staff have also participated in EndNote Training as well as a Health and Wellness Session, which gave us insight on how to be positively motivated while at work.

We will continue to provide professional development and growth to our employees and look forward to what’s to come in the future!