



Kansas Health Science Center - Proposed Kansas College of Osteopathic Medicine Strategic Research Plan - 2020

The Kansas Health Science Center (KHSC)-proposed Kansas College of Osteopathic Medicine (KansasCOM) is committed to train the Osteopathic physician of the future to provide effective, empathic, and innovative care to optimize the health of patients and their communities. KHSC-KansasCOM will focus research efforts in two primary areas:

1. Improving access and patient outcomes to underserved patient populations
2. Evaluation of innovative educational models and processes that promote student knowledge and skills in improving patient access and outcomes

KHSC-KansasCOM will develop a robust infrastructure to promote research in these areas of focus by faculty, staff, and community partners. All KHSC-KansasCOM students will be actively involved in KHSC-KansasCOM research. Students will be provided a four-year research curriculum consisting of:

- Didactic lectures in research methods, biostatistics, critical appraisal of medical literature, and evidence-based medicine.
- Web-based research resources to promote research participation.
- Elective rotations in medical research.

All students will also be required to participate in one or more of the following activities:

- Literature review
- Protocol development
- Institutional Review Board activities (presenting a proposal, participating on a review)
- Data collection
- Dissemination of research findings (Poster presentations, oral presentations, publication)

The KANSASCOM Department of Research

To support these activities, KHSC-KansasCOM will develop the following student and faculty resources:

1. Dedicated research staff
 - a. Director of Research
 - b. Research Coordinator
 - c. Administrative Center Support
2. Development of a data management and analytics partner (<https://research.google/teams/health/>) to facilitate community-based research and data analysis.
3. Faculty development offerings in community-based research.
 - a. <https://research.google/outreach/>
 - b. <https://pbrn.ahrq.gov/about>
4. Development and registration of the KHSC-KansasCOM Practice-Based Research Network (described below). Joel Dickerman, DO, Founding Dean and Chief Academic officer for KHSC-KansasCOM will oversee the development of this PBRN. Dr. Dickerman completed a two-year primary care research fellowship at the University of Colorado and he has had experience in developing two PBRNs. The proposed PBRN is to be registered with AHRQ (<https://pbrn.ahrq.gov/pbrn-registry/register-your-network>)

5. Development and registration of the KHSC-KansasCOM Institutional Review Board (IRB). The KHSC-KansasCOM IRB will serve as an independent review board charged with reviewing KHSC-KansasCOM research projects. The IRB will be registered with U.S. Department of Health and Human Services and will require all members to undertake ongoing training in Human Subjects research.
 - a. <https://www.hhs.gov/ohrp/register-irbs-and-obtain-fwacs/irb-registration/new-irb-registration/index.html>
 - b. <https://www.hhs.gov/ohrp/education-and-outreach/online-education/mini-tutorials/index.html>
6. Development of a Research Resource Center.
 - a. Research mentor group – listing of KHSC-KansasCOM faculty and regional researchers who agree to serve as research mentors for KHSC-KansasCOM students. This listing will be available to all students through the student portal of the KHSC-KansasCOM website.
 - b. Development of a medical monograph publishing center. This system will identify policies and procedures to review and post student and faculty manuscripts as a medical monograph on the KHSC-KansasCOM Research website.
 - c. Printing and publishing support. KHSC-KansasCOM will provide support for poster presentations (printing services, poster templates, publication peer review)
 - d. Grant Resource Center. The Grant Resource Center will identify grant resources for faculty and student research. The Director of research will be available to advise faculty and staff on various grant applications in addition to helping to identify resources to generate competitive grant application.
 - <https://www.wichita.edu/research/ORAIInternalGrants/externalgrants.php>
 - <https://www.ruralhealthinfo.org/topics/health-care-workforce/funding>
 - <https://www.hrsa.gov/grants/find-funding/HRSA-20-008>
 - <https://kansashealth.org/grant-opportunities/>
7. Annual research forum. KHSC-KansasCOM will sponsor an annual research forum, which will invite regional and national plenary speakers with expertise in the KHSC-KansasCOM research areas of interest and provide faculty and students the opportunity to present their research work through paper and poster presentations.
8. Research Curriculum. The KHSC-KansasCOM Department of Research will work with the Senior Associate Dean of Academic Affairs to develop a four-year research curriculum.

Proposed Research Areas of Interest

I. Improving access to underserved and vulnerable patient populations

KHSC-KansasCOM community-based clinical training will be undertaken in six Kansas regions: South Central, South Eastern, South Western, Central-West, West, and North-East Kansas. Each region will provide both ambulatory and hospital-based education for assigned students that will include care for pediatric, adult, and senior patients. Each region will include one or more clinical practices that provide care for underserved patients. These patients include those with geographic limitations to care (rural, home-bound, facility-bound), patients with unique health care needs (senior patients, patients with multiple chronic diseases), and those with economic limitations to care (under/uninsured). These practices will be recruited to participate in the planned KHSC-KansasCOM Practice-Based Research Network (KHSC PBRN) which will be registered with AHRQ. The KHSC PBRN will be charged with researching the following areas of interest:

1. Current barriers to care for underserved patient populations in each practice region
2. Current barriers to recruiting trained health care workers to provide care to local populations
3. Evaluation of innovative solutions for improving care delivery and patient outcomes (i.e., technology-based solutions, health care worker training, patient education)

4. Evaluation of the application of Osteopathic practices principles and practice to chronic diseasemanagement and health promotion
5. Evaluation of inter-professional teams to improve access and patient outcomes (i.e., integratedbehavioral health, community health workers, “hot spotters”)

II.Evaluation of innovative educational models and processes that promote student knowledgeand skills in improving patient access and outcomes

KHSC-KansasCOM will evaluate a number of innovative educational strategies designed to develop student knowledge and skills that promote improving patient care and patient outcomes. Research will include evaluation of:

1. Aligning pre-clinical, clinical, and post graduate education and training
2. Clinical simulation
3. Clinical Presentation small group education including both common patient (acute illness,undifferentiated problem, chronic disease management, preventive care) and commonpopulation-based (care integration, inter-professional care, community health) health careissues.
4. Educational tracks (Information Technology, Rural Medicine, Leadership and Academic Medicine)
5. Virtual reality
6. Artificial/Augmented Reality/Machine learning
7. Telehealth and tele-education
8. OMT/OPP clinical education

Research will focus on evaluating these educational models and the following outcomes:

1. Student attitudes and beliefs
2. Residency selection
3. National board score performance
4. Clinical performance (preceptor evaluation)