Established in 2014, the Patient-Centered Research for Outcomes, Effectiveness, and Measurement (PROEM) Center of Excellence in Comparative Effectiveness and Patient-Centered Outcomes Research Education at the University of Maryland, Baltimore (UMB) works to expand and improve training in comparative effectiveness research and patient-centered outcomes research (CER-PCOR). Housed within the University of Maryland School of Pharmacy, it is one of five centers in the United States funded by the Pharmaceutical Research Manufacturers Association (PhRMA) Foundation to help expand CER-PCOR graduate education and training programs across the nation.

EMERGING AREAS OF RESEARCH
As health care in the United States continues to evolve, a new emphasis on the need to engage patients in all aspects of health care research, decision making, and dissemination has emerged. CER-PCOR has received increased attention in recent years as a means of addressing this need.

• **CER** compares the benefits and harms of existing treatment options, including medications, medical devices, diagnostic tests, surgical interventions, and health care delivery methods, to help patients and health care providers make more informed health care decisions.

• **PCOR** helps people and caregivers communicate and make informed health care decisions, allowing their voices to be heard in assessing the value of health care options.

BUILDING THE CER-PCOR WORKFORCE
To help CER-PCOR continue to gain traction and successfully improve patient outcomes, there is a need for expanded training opportunities to provide current and future CER-PCOR researchers with the knowledge and skills necessary to conduct patient-centered research activities and provide practitioners with the skills to interpret CER-PCOR studies and appropriately implement findings.

Supported by an interdisciplinary team from six professional schools and five research centers across UMB -- as well as a range of committed external partners from government, nonprofit, professional, trade, and private organizations -- the PROEM Center of Excellence builds upon the University’s strengths in CER-PCOR, graduate and continuing education, community outreach, and collaborative partnerships to support its innovative training programs.

The Center employs two approaches to enhance CER-PCOR education and training opportunities for researchers across the state of Maryland and beyond.

GRADUATE EDUCATION
- **PhD in Pharmaceutical Health Services Research (PHSR) Program:** The School of Pharmacy’s existing PhD in PHSR program has expanded to include a new concentration in CER-PCOR that includes learning experiences at a wide range of training sites, including government and non-government agencies, the pharmaceutical industry, patient advocacy organizations, trade organizations, and insurers.
The cutting-edge curriculum is taught by full-time faculty members from the Schools of Pharmacy, Medicine, Nursing, and Law, as well as a range of external experts who serve as adjunct and guest faculty. For more information, please visit www.pharmacy.umaryland.edu/academics/ohsr.

CONTINUING EDUCATION

Current health care professionals, researchers, and students are invited to participate in CER-PCOR interdisciplinary online and in-person continuing education programs offered by the University:

- **CER-PCOR Summer Institute:** The PROEM Center of Excellence hosts an annual CER-PCOR Summer Institute designed to provide participants with an introduction to CER-PCOR, as well as the skills and resources required to navigate this specialized area of research. This five-day course is open to faculty, postdoctoral fellows, graduate students, industry researchers, and government policymakers. For more information, please visit www.pharmacy.umaryland.edu/CER-PCOR-SummerInstitute.

- **Fundamentals of CER-PCOR Educational Modules:** This series of online modules is designed to introduce researchers, clinicians, and other health care professionals to the fundamentals of CER and PCOR. It is available for independent online study, with courses delivered through the School of Pharmacy’s Center for Innovative Pharmacy Solutions (CIPS) Knowledge Enterprise. For more information, please visit www.pharmacists4knowledge.org.

- **CER Collaborative Certificate Training Program:** This 19-hour program, sponsored by the CER Collaborative, is offered through the School of Pharmacy’s CIPS Knowledge Enterprise includes five online modules and one in-person course designed to train pharmacists and other clinical decision makers to evaluate and apply CER in health care clinical and formulary decision making. For more information, please visit www.pharmacists4knowledge.org/cips/CER.

For more information about the Center and available education and training opportunities, please contact cer-pcor@rx.umaryland.edu.