Practice-based research has the potential to dramatically improve the speed, efficiency, relevance, and impact of mental health clinical and services research. Realizing those gains will require a practice-based research network capable of anticipating and adapting to changes in mental health care delivery, including:

- Research fully embedded in real-world practice
- Alignment of research goals with priorities of patient and health system stakeholders
- Large-scale data infrastructure available for rapid analysis
- A culture of trust and transparency to facilitate collaborative learning and improvement

In pursuit of those goals, the NIMH-funded Mental Health Research Network (MHRN), has developed a robust national research infrastructure and implemented a diverse program of mental health research aligned with each of these requirements. The MHRN portfolio now includes 20 research projects, many led by external investigators, encompassing a wide range of clinical topics (suicide prevention, first-episode psychosis, depression in primary care, antipsychotic use in youth, co-occurring conditions) and a wide range of research methods (observational epidemiology, qualitative research, pragmatic trials, machine learning, implementation science).

With this application, we propose to expand MHRN to include 14 research centers embedded in large integrated health systems serving a combined member/patient population of over 25 million in 16 states. MHRN infrastructure will be enhanced to support a next-generation practice-based network, including:

- Increased engagement of patients, health system leaders, and other stakeholders in network governance
- An expanded public, open-source library of software tools and other technical resources
- More formal processes for conducting feasibility pilot projects and rapid response to stakeholder queries
- Expanded outreach to external stakeholders and research partners

This overall application requests support for an Administrative Core, a Methods core, two Signature research projects and two Pilot research projects.

The Administrative Core, led by Gregory Simon and Belinda Operskalski, will include an Organizational Unit responsible for governance, strategic planning, fiscal management, and compliance; an Outreach and External Collaboration Unit responsible for communications, resource sharing, promoting new collaborations, and supporting feasibility pilot projects; and an Emerging Issues Unit to identify and address emerging questions for internal and external stakeholders. The Organizational Unit will maintain and enhance the governance, operational, fiscal management, and compliance resources proven successful in 8 years of MHRN operations. At each site, core resources will support effort by a site lead investigator (responsible for supervising local data infrastructure activities and health system engagement), one or more programmer/analysts (responsible for data infrastructure quality control, routine descriptive analyses, and analyses regarding emerging issues), and one or more project managers (responsible for local financial management and regulatory compliance). In the proposed new funding cycle, patient and family stakeholders will join the network Steering Committee and an External Advisory Committee will participate in network strategic planning and evaluation. The Outreach and External Collaboration unit will maintain and enhance the communications tools, resource sharing mechanisms, health system engagement processes, and external investigator engagement processes proven successful in 8 years of MHRN operation. A structured process for receiving and responding to requests for feasibility or pilot data (from either MHRN-based or external investigators) will include a transparent process for timely response to queries and specific resources allocated to small pilot projects. A structured process for receiving and responding to queries from health system and external stakeholders will include technical assistance to end-users and will draw from MHRN's large library of descriptive analyses, standard queries, and computable phenotypes. A structured evaluation plan will address specific progress toward the indicators of success specified in RFA-MH-19-225.