The Medicaid Outcomes Distributed Research Network (MODRN)

Medicaid provides coverage for over 70 million Americans and serves as the backbone of the health care safety net. Comparing access, quality and costs across state Medicaid programs can provide much-needed information to state policymakers. Yet, there are a number of barriers to sharing data between states. AcademyHealth’s Medicaid Outcomes Distributed Research Network (MODRN) is a collaborative effort to analyze data across multiple states to facilitate learning among Medicaid agencies. Leveraging the State-University Partnership Learning Network (SUPLN) and the Medicaid Medical Directors Network (MMDN), AcademyHealth, in collaboration with a Data Coordinating Center at the University of Pittsburgh, launched MODRN in 2018 to provide states with the opportunity to utilize multi-state Medicaid data to address issues of national public health importance, such as the opioid crisis, while measuring the impact of innovative policies and interventions. MODRN accomplishes this through the use of a Medicaid Common Data Model (CDM), which ensures consistency in data elements and supports standardized measurement of outcomes so that Medicaid policy analyses can be conducted across states within the network.

The MODRN is a collaborative effort between the State-University Partnership Learning Network (SUPLN) and the Medicaid Medical Director Network (MMDN) to support evidence-based state health policy and practice with a focus on transforming Medicaid-based healthcare, including improving the patient experience with care, improving the health of populations, and reducing the per capita cost of healthcare.
How MODRN Achieves Its Goals:
To achieve the participating partners’ aims of creating a collaborative effort to analyze Medicaid claims data across multiple states to facilitate learning among Medicaid agencies, MODRN:

- Establishes a distributed research network composed of multiple state-university research partnerships using a CDM, which converts each state’s Medicaid data to common structure and format.
- Instructs each state-university research partnership on implementing the Medicaid CDM.
- Each state-university partnership contributes to the development of a common analytic plan, and conducts analyses locally on their own state Medicaid data using standardized code developed by the data coordinating center.
- State-university partners provides aggregate results, not individual data, to the data coordinating center which synthesizes the aggregate findings from multiple states for reporting.

MODRN Highlights
Cross-State Collaborative Projects
The MODRN-Opioid Use Disorder Project (OUD) Project
Guided by the national priority of addressing the opioid epidemic, the MODRN-OUD project objective is to provide a comprehensive assessment of OUD treatment quality and outcomes in Medicaid, and to inform policy decisions on coverage and payment for evidence-based OUD treatments in Medicaid. While states are currently taking myriad approaches to addressing the opioid crisis by changing the way they regulate providers, pay for care, and cover evidence-based treatments in Medicaid, there is no existing analytic infrastructure for learning about the impact of state policy experimentation on OUD treatment and outcomes as states have no mechanism for sharing data or measurement tools. To address this, in partnership with states, the MODRN-OUD project is harnessing the analytic infrastructure of MODRN to inform policy decisions to improve the quality of OUD treatment among Medicaid enrollees.

Future Applications of the MODRN
The Medicaid CDM, organizational infrastructure, and analytic tools developed for the MODRN – OUD project can be adapted for use in future Medicaid research by SUPLN partnerships. The data elements contained in the Medicaid CDM can identify other clinical populations relevant to Medicaid, and construct measures of health care utilization and outcomes for evaluating health system interventions. Future projects of policy relevance to Medicaid include those focused on behavioral and physical health integration, telehealth, maternal mortality and morbidity, social determinants of health, broader substance use disorder (SUD), and many others.

Many SUPLN partners engaged in single state analyses that link Medicaid data to vital statistics, housing data, income maintenance programs, food and nutrition services, child welfare system records, and criminal justice records. The next frontier for MODRN will be to capitalize on these linkages to conduct multi-state analyses on the social determinants of health and evaluate opportunities to better integrate health and human services delivery.

Overview: State University Partnership Learning Network
Launched in 2014, AcademyHealth established the State University Partnership Learning Network (SUPLN) to support evidence-based state health policymaking through ongoing collaborations between a state agency, primarily Medicaid, and a university research center through formalized state-based partnerships. In order to support the mission of the Learning Network, AcademyHealth convenes partners regularly for web conferences and Collaboration Calls on specific policy-related issues, distributes monthly newsletters and manages a private shared web platform to disseminate relevant policy information as well as research findings produced by members and external researchers. AcademyHealth also hosts an annual SUPLN in-person meeting to allow partnerships to share their work and network with their cross-state counterparts. Acknowledging the challenges to conducting effective cross-state analysis, a subset of the SUPLN’s twenty-seven partnership established the MODRN to facilitate shared learnings between state agencies on their most pressing Medicaid-based healthcare issues. The SUPLN continues to serve as a space for state agency representatives and university researchers to collaboratively create innovative solutions to their states’ health-related issues and is actively pursuing future opportunities for cross-state analysis.

Overview: Medicaid Medical Directors Network
As the professional home of the Medicaid Medical Directors Network (MMDN), AcademyHealth maintains a strategic partnership with more than 40 state Medicaid Medical Directors (MMDs) providing a forum to discuss their most pressing needs and apply the latest evidence to address them, especially related to quality assurance, quality improvement, and coverage decisions. The MMDN focuses on the development and use of evidence-based medicine, measurement and improvement of health care quality, and the redesign of health care delivery systems. AcademyHealth assists with these efforts by: creating and sustaining a vibrant learning community for MMDs and other senior clinical leaders to promote and share best practices for the medical direction of State Medicaid programs through regular conference calls, in-person meetings, and online engagement; facilitating the exchange of the network’s expertise and experience to federal agencies and national organizations involved in creating policy or implementing programs; and assisting in the implementation of nationally significant multistate measurement and quality improvement projects, such as cross-state analysis of high-cost, high-need beneficiaries, a MMDN-wide survey of Medicaid’s role in measuring and addressing social determinants of health, and, in collaboration with the SUPLN, a multistate opioid use disorder treatment evaluation project, and development of MODRN.

To learn more about MODRN please visit: academyhealth.org/MODRN