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## MEDNET: A Multi-State Policymaker/Researcher Collaboration to Improve Prescribing Practices

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### Abstract

States face new federal requirements to monitor psychotropic prescribing practices for children and adults in Medicaid. Effective use of quality measurement and quality improvement strategies hold the promise of improved outcomes for public mental health systems. The Medicaid/Mental Health Network for Evidence Based Treatment (MEDNET) is an AHRQ funded multi-state Medicaid quality collaborative with the Rutgers University Center for Health Services Research on Pharmacotherapy, Chronic Disease Management, and Outcomes. We review the development, infrastructure, challenges, and early evidence of success of this public-academic partnership, the first multi-state Medicaid quality improvement collaborative to focus on psychotropic medications.

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Public health concerns related to the safety and overuse of antipsychotics have been increasing. The American Psychiatric Association recently released five recommendations for physicians and patients cautioning against the use of antipsychotics without an appropriate initial evaluation and ongoing monitoring, use of two or more antipsychotics concurrently, and use of antipsychotics as a first-line intervention in dementia, insomnia, and children in the absence of a psychotic disorder or other first-line indication (1). State Medicaid programs, the largest funders of mental health services nationwide, face increasing federal mandates to monitor antipsychotic prescribing. The Child and Family Services

Improvement and Innovation Act of 2011 (P.L. 112-34) requires states to oversee psychotropic use for foster care youth based in part on findings of higher use of antipsychotics in this population, new HEDIS measures were introduced in 2013 related to antipsychotic use for adults, and Medicare introduced two new antipsychotic quality measures on the Nursing Home Compare website in 2012. These developments highlight national quality concerns related to antipsychotic prescribing for children, adults, and the elderly, and require states to increase quality management of antipsychotic prescribing practices.

Effective quality improvement in Medicaid requires databases that integrate pharmacy with behavioral health and medical services data, in addition to well defined measures, reporting tools that track prescribing practices across and within states over time, and evidence based quality interventions. The Institute of Medicine has promoted the concept of “Learning Health Systems” where health care decisions at all levels of the system are based on evidence, stakeholders are engaged, quality improvement and monitoring is iterative and transparent, and data are used to drive policy decision making (2). Unfortunately, states often lack the tools and capacity needed to manage quality for recipients of mental health services. Fragmentation of service delivery, patient health information, and accountability among state agencies and programs; diversity of funding mechanisms; and lack of well defined measures to use for quality management and value based contracting, has created barriers to the development of a “learning mental health system” in the public sector. Development of measurement-driven quality improvement (QI) initiatives bridging these fragmented systems is a complex technical task that can benefit from sustained policymaker/academic collaboration as well as systematic sharing of information on successful strategies between states.

In this column we describe the Medicaid/Mental Health Network for Evidence Based Treatment (MEDNET), the first multi-state Medicaid quality improvement (QI) collaborative to focus on improving psychotropic prescribing practices. The authors, the MEDNET academic coordinating team, share project observations and early outcomes.

## Development of MEDNET

MEDNET builds on the partnerships developed during the Medicaid Medical Directors Learning Network (MMDLN) Antipsychotics in Children Project, where 16 participating states examined trends in the use of antipsychotics among children in their Medicaid programs (2004–2007) (3). The MEDNET project (2010–2013) extended the work of the MMDLN with the following four aims: 1) develop fully specified antipsychotic quality measures for children and adults and create a common data platform for analysis, 2) convene a multi-state QI consortium, and provide a model of stakeholder informed QI, 3) support states in developing and implementing stakeholder-informed state QI plans to improve performance on the measures, and 4) disseminate MEDNET activities and outcomes. The six participating states, Washington, Missouri, California (focusing on Orange County), Maine, Oklahoma, and Texas, collectively had approximately 20 million Medicaid enrollees in 2010 (4), and represented a diversity of geographic regions, patient populations, service delivery systems, and policy and regulatory environments.

## Roles and Infrastructure

Rutgers University Center for Health Services Research on Pharmacotherapy, Chronic Disease Management, and Outcomes, the academic coordinating center for the project, built a team to manage the QI consortium (coauthors), support data management and analysis, and provide technical assistance (TA) to states. Academy Health provided logistical support for the project.

The Rutgers Center created a security remote-access facility (SRAF) to make cleaned and de-identified state-supplied Medicaid data available to support collaborative analytic work between states and academic partners. State-supplied Medicaid data were converted into a common data framework, and Rutgers created state reports to support benchmarking against other states, and within states by county. A bi-weekly metrics workgroup of academic and state data experts developed consensus driven antipsychotic measures. Participating states received the final measurement specifications, statistical (SAS) code for programming the measures, and technical assistance on use of the MEDNET metrics in the SRAF and their own state databases.

States participated in the project steering committee, ensuring project decisions were founded on state priorities. Each state developed a multi-stakeholder driven state QI plan, identifying the target population, partners, MEDNET measures targeted (5, 6), and strategies to improve performance on measures. States submitted monthly updates on QI milestones, and in monthly multi-state meetings shared challenges and progress on their QI plan, discussing questions and options with expert consultants and their peers.

Each state received customized TA through individual monthly QI calls, annual site visits, and individual expert consultations. The MEDNET academic team provided consultation on best practices in psychotropic prescribing, Medicaid data analysis and quality measure development, quality collaboratives, and measurement-driven QI implementation. We arranged for additional outside expertise based on state requests.

## Challenges and Lessons Learned

### Measure Development and Adoption

States requested TA to a greater extent than was anticipated in implementing measure-driven QI; analytic strategies and use of performance metrics became a primary TA focus. Some states had a pre-existing measure which created a barrier to adopting a similar but different MEDNET antipsychotic measure, for example, a state measure of antipsychotic polypharmacy that did not require concurrent use. In the course of implementing their state QI plan, when measure definitions were discussed openly with stakeholders, and made transparent, including performance and which patients had been identified, physician feedback led to state alignment with the validated MEDNET approach of >90 days concurrent use to reduce false positives (7).”

## Medicaid Data Access, Use and Sharing

State Medicaid data releases to MEDNET involved negotiating specific data use agreements, business associate agreements, human subjects approvals, coordination across state agencies, and persistent effort from the state MEDNET representative and the Rutgers team. This goal was ultimately realized for all participants but took longer than anticipated (1–3 years), requiring workarounds until state data was available. Sustaining and expanding data sharing agreements was easier, and highlights the importance of maintaining these relationships once established.

MEDNET states were also encouraged to share data with treating providers, including timely patient-identified data to target quality improvement efforts. In some cases, states interpreted federal or state laws as prohibiting sharing of mental health data in ways that are needed to support quality improvement, including sharing with treating providers, other state health agencies, or with medical managed care plans with a behavioral health carve out. TA involved convening cross-agency workgroups, introducing external experts that were able to share precedents and strategies used in other states, and aligning with national fiscal incentives to integrate physical and mental health, such as health homes.

## Value of State to State Collaboration

States saw value in each other's ideas, tools, and policy innovations. The initial MEDNET measures were built on the Psychiatric Services and Clinical Knowledge Enhancement System (PSYCKES) measures and web-based application developed in New York State, and some states used quality collaborative resources developed by the PSYCKES team (8, 9). Several states elected to use TA resources to visit a model program in another state, or have a state program leader provide consultation.

## State Leadership and Champions

The MEDNET project was launched in the context of a national economic recession, a few months prior to the 2010 gubernatorial elections, resulting in changes in state leadership and priorities. Creative adaptation was necessary in each state to move the project forward. In two states the state mental health authority was eliminated, as well as the role of the Medical Directors serving as the MEDNET point person for these states. MEDNET was able to retain these former mental health leaders through consulting contracts, keeping key champions and states involved in the project. For example, in one state the MEDNET point engaged a county managed care organization in the project in year one, while ongoing parallel efforts to engage new state health leaders were successful by the third year of MEDNET. Stakeholder engagement and clinical champions are critical to not only "carry" the project forward but also to establish and sustain the infrastructure needed to deliver useful information at the prescriber level.

## Evidence of success

### Aim 1: Develop antipsychotic measures and a common Medicaid data platform

Nine measures were developed by the MEDNET consortium, and have generated national interest (5, 6). Several were adapted by the National Collaborative for Innovation in Quality

Measurement under the AHRQ Pediatric Quality Measures Program (10), and subsequently approved as 2015 HEDIS measures. Several states incorporated MEDNET measures to support federally mandated monitoring of psychotropics for foster care. The common Medicaid data platform was established, and several states have committed to ongoing data sharing agreements beyond the end of the funded project.

### **Aims 2 & 3: Convene a multi-state QI consortium & Support implementation of state QI plans to improve performance**

The multi-state consortium retained the six participating states despite significant environmental challenges. Each participating state successfully developed and implemented QI plans to improve practice on their chosen measures. Although data are not yet available on impact of state projects, several indications suggest the MEDNET project has accelerated state Medicaid focused quality efforts. States have incorporated new MEDNET-based Medicaid administrative processes including integration into standing drug utilization review protocols, a state External Quality Review Organization, and managed care uptake, implementing new quality improvement approaches, and using their Medicaid data in new ways to foster learning health care systems.

### **Aim 4: Disseminate MEDNET activities and outcomes**

We worked with the Administration for Children and Families (ACYF), to disseminate lessons learned from MEDNET to state foster care programs. MEDNET (SC, SNT) served on the ACYF Future Directions Workgroup, and consulted on the *Because Minds Matter* summit (11), where several MEDNET states presented. MEDNET (SC, SB) and ACYF co-sponsored a follow-up *Data Speaks* national workshop (5). The MEDNET data platform has provided a foundation for new public/academic partnerships, and two additional states became MEDNET affiliates (Ohio and Wisconsin) over the course of the project.

## **Summary and Conclusions**

MEDNET is the first multi-state Medicaid quality collaborative to focus on psychotropic medications and to engage states in development and implementation of consensus driven, standardized measurement strategies to improve prescribing practices. The project has met its aims of developing fully defined quality measures in collaboration with states, supporting states in the development and implementation of a state QI plan to improve performance on these measures, and disseminating lessons learned to other states. States and the MEDNET investigative team have engaged in developing strategies for continuation following the grant period, including sustaining Medicaid data sharing agreements, development of new academic-public partnership projects between Rutgers and participating states, and targeting new areas of quality concern in the delivery of mental health services that build on the expertise and relationships of the existing network. Finally, MEDNET was funded through the Agency for Healthcare Research and Quality (AHRQ) under the Comparative Effectiveness Research (CER) research grants and the American Recovery and Reinvestment Act providing much needed resources to support this unique collaboration. Resources that specifically target public-academic partnerships are necessary to support and

sustain the efforts of states to build a learning mental health system for improved delivery of care for patients whose care is publicly funded.

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