

Assessing the Present State and Potential of Medicaid Controlled Substance Lock-In Programs

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SUMMARY

Nonmedical use of prescription medications—particularly controlled substances—has risen dramatically in recent decades, resulting in alarming increases in overdose-related health care utilization, costs, and mortality. The Centers for Disease Control and Prevention estimate that 80% of abused and misused controlled substances originate as legal prescriptions. As such, policymakers and payers have the opportunity to combat nonmedical use by regulating controlled substance accessibility within legal prescribing and dispensing processes. One common policy strategy is found in Medicaid controlled substance lock-in programs. Lock-in programs identify Medicaid beneficiaries exhibiting high-risk controlled substance seeking behavior and “lock in” these patients to, typically, a single prescriber and pharmacy from which they may obtain Medicaid-covered controlled substance prescriptions. Lock-in restrictions are intended to improve care coordination between providers, reduce nonmedical use behaviors, and limit Medicaid costs stemming from nonmedical use and diversion. Peer-reviewed and gray literature have been examined to assess the current prevalence and design of Medicaid lock-in programs, as well as the current evidence base for informing appropriate program design and understanding program effectiveness. Forty-six state Medicaid agencies currently operate lock-in programs. Program design varies widely between states in terms of defining high-risk controlled substance use, the scope of actual lock-in restrictions, and length of program enrollment. Additionally, there is a remarkable dearth of peer-reviewed literature evaluating the design and effectiveness of Medicaid lock-in programs. Nearly all outcomes evidence stemmed from publicly accessible internal Medicaid program evaluations, which largely investigated cost savings to the state. Lock-in programs are highly prevalent and poised to play a meaningful role in curbing the prescription drug abuse epidemic. However, achieving these ends requires a concerted effort from the academic and policy communities to rigorously evaluate the effect of lock-in programs on patient outcomes, determine optimal program design, and explore opportunities to enhance lock-in program impact through coordination with parallel controlled substance policy efforts, namely prescription drug-monitoring programs.

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Nonmedical use of prescribed controlled substances—including opioid analgesics, anxiolytics, and sedative hypnotics—presents a significant threat to public health in the United States. Nonmedical prescription drug use can be characterized as either “misuse” or “abuse.” Misuse refers to the consumption of a controlled substance in dosages higher than what is prescribed or for reasons other than the prescribed indication. Abuse refers to the misuse of a controlled substance resulting in disability or dysfunction.¹

Over the past decade, nonmedical use of controlled substances has increased dramatically.² The Centers for Disease Control and Prevention (CDC) reported that, over the last decade, an average of 1.9 million people each year became new users of prescription medications for nonmedical purposes. This same report found that over 6 million people aged 12 and older misused or abused prescription medications in the previous month. Currently, prescription medications are second only to marijuana as the most commonly abused substance in the United States.³

The recent dramatic increase in controlled substance misuse and abuse has contributed to adverse clinical and economic outcomes. Emergency department visits due to prescribed controlled substance overdose increased by 115% from 2004 to 2010.⁴ Fatalities from such overdoses have risen steadily in recent years. Prescription drug overdose deaths increased 5-fold since 1990 and rose from 4,000 to 15,000 deaths per year between 2004 and 2008 alone. Opioid analgesic overdoses are now second only to motor vehicle crashes in causing unintended deaths.⁵⁻⁷

In addition, nonmedical use of opioid analgesics has significant economic consequences. The average annual health care costs for opioid abusers in Medicaid programs are nearly double that of nonabusers, and annual health care costs for privately insured opioid abusers are up to 8 times that of nonabusers.⁸ In total, nonmedical use of controlled substances results in \$53 billion to \$73 billion in unnecessary costs annually, including lost productivity, criminal justice system costs, and health care expenditures.^{5,8,9}

Controlled substances, unlike other prevalent illicit drugs abused in the United States, are often obtained through entirely legal processes. In fact, lawful manufacturing and prescribing of controlled substances has quadrupled over the past decade.^{5,10} It is not surprising, then, that recent studies identify licensed prescribers and pharmacies as nonmedical users' primary point of access to these medications.¹¹ A recent analysis of National Survey on Drug Use and Health data, which surveys civilian noninstitutionalized adults, found that nearly one-third of individuals identifying as nonmedical users of opioid analgesics cited regular visits with their primary care physicians as their usual source of the medication.¹² The CDC reported in 2011 that 80% of misused and abused controlled substances originated as legal prescriptions dispensed to either the user or the user's friends or family.³

■ Combating Nonmedical Prescription Use Through Policy

Lawmakers have long employed policy strategies to curb fraudulent procurement of prescription medications. These range from targeted case management programs for high-risk controlled substance users to the proliferation of triplicate and tamper-proof prescription forms.^{13,14} However, the recent epidemic of nonmedical use of controlled substances has garnered renewed attention from federal and state policymakers.¹⁵

In 2011, the Office of the President of the United States published a call to action for policymakers titled “Epidemic: Responding to America’s Prescription Drug Abuse Crisis.” This document recommended a 4-pronged approach to addressing this issue, including education of parents, children, patients, and providers about nonmedical use of prescription drugs; improved access to proper medication disposal services; improved tracking and monitoring systems to detect nonmedical use of prescription drugs; and strengthened enforcement of illegal prescribing and dispensing of pharmaceuticals.¹⁵

States are currently mounting robust efforts to achieve these ends, particularly through heightened monitoring of nonmedical prescription use and law enforcement. State-level prescription drug monitoring programs (PDMPs) have been the most extensively documented and championed strategy thus far, with 49 states enacting PDMP legislation to date.¹⁶ Nearly all of these state PDMPs are currently operational, aggregating patient-, provider-, prescription-, and pharmacy-level data for each controlled substance prescription dispensed in the state. Prescribers and pharmacists can access the PDMP to identify patients exhibiting high utilization of controlled substances or inappropriate “doctor shopping” or “pharmacy shopping” behaviors. Although uptake of PDMP use has been slow among providers, researchers have found an association between PDMP use and reduced fraudulent prescription-seeking behavior and unnecessary health care utilization resulting from nonmedical use of opioid analgesics.¹⁷⁻²¹

■ The Lock-In Approach

Although PDMPs capture all legally dispensed controlled substance prescriptions in a state, policymakers have also recognized the potential for influencing nonmedical prescription drug use through payer systems, particularly Medicaid programs. Currently, the vast majority of states operate Medicaid “lock-in” programs (MLIPs). Lock-in programs tightly regulate health care access for beneficiaries with excessive use of Medicaid services, especially those exhibiting high-risk controlled substance use, by requiring locked in beneficiaries to use designated prescribers and/or pharmacies for Medicaid coverage of medical and pharmacy services.

The legal basis for controlled substance lock-in programs was established by the Code of Federal Regulations, 42 CFR 431.54(e).²² This provision allows Medicaid agencies to restrict, or lock in, beneficiaries that overutilize Medicaid services,

including controlled substance prescriptions, to designated providers. MLIPs will only reimburse claims for locked-in beneficiaries if they receive these services from a single primary care provider and/or a single pharmacy. However, 42 CFR 431.54(e) stipulates Medicaid agencies must “ensure that the recipient has reasonable access . . . to Medicaid services of adequate quality.” In addition, Medicaid cannot apply restrictions to emergency medical services, and the lock-in period must only last for “a reasonable period of time.” Program candidates must be informed of their lock-in status in writing prior to enrollment.

Lock-in programs serve 3 primary purposes with respect to nonmedical controlled substance use, although the primary intent varies by state. First, restricting health care services to a single provider allows that provider to better coordinate the medical care of the locked-in beneficiary. Excessive utilization of health care services is often attained through doctor shopping or pharmacy shopping. Obtaining prescriptions from disparate providers, especially for controlled substances, has been associated with receiving duplicative therapies, ingestion of excessive doses of controlled substances, adverse health outcomes, and increased mortality.^{23,24} Second, Medicaid lock-in programs may reduce diversion of controlled substances. Individuals seeking large quantities of controlled substances from multiple providers often do so for the purpose of channeling them to another party for nonmedical use.^{25,26} Third, states have strong economic incentives for implementing controlled substance lock-in programs. If lock-in programs successfully reduce doctor and/or pharmacy shopping and nonmedical use of controlled substances, Medicaid programs may have reduced expenditures for medically unnecessary prescriptions and health care services needed to treat adverse health outcomes from nonmedical use of these drugs.

Compared with PDMPs, MLIPs have garnered very little attention among academics and policymakers as a major player in the fight against controlled substance abuse and misuse. Any large-scale effort to combat this epidemic through policy and payer-based interventions would be incomplete without careful consideration of leveraging MLIPs, which serve a large, high-risk patient population known to experience substantially higher rates of opioid overdose than the privately insured.²⁷ With this commentary, we hope to begin this discussion by describing the current landscape of MLIPs and the evidence base available to inform MLIP design and understand its effect on patient outcomes.

■ Search Strategy

Each state was assessed individually for evidence of an operational MLIP, any details regarding the design of the MLIP, and any available data evaluating clinical or economic outcomes from MLIP enrollment. This information was compiled from comprehensive searches performed in both the published literature and among publicly available online information. The

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TABLE 1 State-Level Characteristics of Active Medicaid Lock-In Programs

State ^a	Active Lock-In Program	Initial Enrollment Duration (Months)	Explicit Enrollment Criteria Available	Evaluation Data Available	Enhanced Medical Home Design
Alabama ^{A1}	Yes	NR	-	-	-
Alaska ^{A2,A3}	Yes	12	Yes	-	-
Arizona	-	-	-	-	-
Arkansas ^{A4}	Yes	NR	-	-	-
California	-	-	-	-	-
Colorado ^{A5}	Yes	12	Yes	-	-
Connecticut ^{A6,A7}	Yes	12	-	Yes	-
Delaware ^{A8}	Yes	12	-	-	-
Florida ^{A9}	Yes	NR	-	-	-
Georgia ^{A10}	Yes	12	-	-	-
Hawaii ^{A11}	Yes	NR	-	-	-
Idaho ^{A12}	Yes	NR	Yes	-	-
Illinois ^{A13,A14}	Yes	12	-	Yes	-
Indiana ^{A15}	Yes	24	-	-	Yes
Iowa ^{A16-A18}	Yes	24	-	Yes	-
Kansas ^{A19}	Yes	24	-	-	-
Kentucky ^{A20,A21}	Yes	24	Yes	Yes	-
Louisiana ^{A22,A23}	Yes	NR	-	Yes	-
Maine ^{A24}	Yes	24	-	-	-
Maryland ^{A25,A26}	Yes	6	-	-	-
Massachusetts ^{A27,A28}	Yes	12	Yes	Yes	-
Michigan ^{A29}	Yes	24	Yes	-	-
Minnesota ^{A30}	Yes	24	-	-	-
Mississippi ^{A31}	Yes	18	-	-	-
Missouri ^{A32}	Yes	12-24	-	-	-
Montana ^{A33}	Yes	24	-	-	Yes
Nebraska ^{A34}	Yes	24	-	-	-
Nevada ^{A35,A36}	Yes	NR	Yes	-	-
New Hampshire ^{A37}	Yes	12	Yes	-	-
New Jersey ^{A38}	Yes	48	Yes	-	-
New Mexico	-	-	-	-	-
New York ^{A39}	Yes	24	-	-	-
North Carolina ^{A40,A41}	Yes	12	Yes	Yes	-
North Dakota ^{A42}	Yes	18	-	-	-
Ohio ^{A43}	Yes	18	-	-	-
Oklahoma ^{A44-A46}	Yes	24	-	Yes	-
Oregon ^{A47}	Yes	18	Yes	-	-
Pennsylvania ^{A48}	Yes	60	-	-	-
Rhode Island ^{A49}	Yes	15	-	-	-
South Carolina ^{A50,A51}	Yes	12	-	Yes	-
South Dakota	-	-	-	-	-
Tennessee ^{A52}	Yes	NR	-	-	-
Texas ^{A53}	Yes	36	-	-	-
Utah ^{A54,A55}	Yes	12	Yes	Yes	-
Vermont ^{A56,A57}	Yes	24	-	-	-
Virginia ^{A58}	Yes	36	Yes	-	-
Washington ^{A59,A60}	Yes	24	Yes	Yes	-
West Virginia ^{A61,A62}	Yes	12	Yes	Yes	-
Wisconsin ^{A63,A64}	Yes	24	-	Yes	-
Wyoming ^{A65}	Yes	12	Yes	-	-

Note: Information in this table is based on published literature and publicly accessible information online.

^aCitations for the reference footnotes in this table (A1, A2, A3, etc.) are located in the Appendix, which is available in the online article.

(-) = No; NR = not reported.

approach used for online searching included a complete review of the state's Medicaid website—and Medicaid managed care website, if available—in addition to multiple keyword searches involving intuitive combinations of select terms, including the state name, “Medicaid,” “controlled substance,” “lock-in,” “restriction,” and “recipient management.” If a state's Medicaid agency or its MLIP used an official operational name, then the online search strategy was adjusted to center around those specific phrases. First, we included any information available about an MLIP on each state's official website. We focused on providing the most comprehensive description available at the time of the search. Second, we included any study that either described an MLIP or reported on process or outcomes. We divided these studies into 2 types: peer-reviewed studies and unpublished outcomes data available from individual states.

■ MLIP Body of Evidence

Prevalence and Design of Existing Medicaid Lock-In Programs

Forty-six states currently maintain an active MLIP in some form. Evidence of such programs could not be identified for Arizona, California, New Mexico, and South Dakota. Table 1 presents select state-level characteristics of MLIPs, including enrollment duration and public availability of the explicit program enrollment criteria and evaluation data. Remarkable variability exists in the scope and design of these 46 MLIPs. This may be owed, in large part, to the federal legislation enabling the creation of MLIPs—42 CFR 431.54(e)—which lacks any specific instruction to states regarding program logistics or how to define excessive use of Medicaid services for lock-in enrollment.

Most MLIPs restrict beneficiaries to a single pharmacy and a single prescribing physician for the enrollment period, while some states employ other restriction variations. For example, Florida Medicaid locks individuals in to just a single pharmacy.²⁸ Missouri Medicaid beneficiaries may be locked in to a single pharmacy, physician, or both.²⁹ Nebraska, on the other hand, has instituted a 5-tier system in which enrollees are restricted to additional provider types depending on the egregiousness of their controlled substance-seeking behavior.³⁰ The duration of enrollment in the MLIP also varies from state to state. Most enrollment periods last 12 to 24 months, but notable exceptions exist. For example, New Jersey and Pennsylvania require 4 years and 5 years of enrollment, respectively.^{31,32} Multiple states also employ re-enrollment periods for subsequent violations that often last significantly longer than the initial enrollment period.

Sixteen states have made their MLIP enrollment criteria publicly available (Table 2). Most of these states define overutilization of controlled substances based on quantities of prescriptions filled, number of pharmacies visited, and/or number of controlled substance prescribers seen over a certain period of time. However, a high degree of variability in criteria exists

even within this small sample of 16 active MLIPs. Nevada uses the basic benchmark of filling any 9 controlled substance prescriptions within a 60-day period.³³ In addition to prescriber and pharmacy limits, Idaho Medicaid beneficiaries are eligible for lock-in enrollment if they continuously use muscle relaxers for 6 months or fill 8 or more opioid analgesic prescriptions, 6 or more benzodiazepine prescriptions, or 3 or more tramadol prescriptions in the previous 60 days.³⁴ Virginia's Medicaid agency utilizes especially intricate enrollment criteria, defining overutilization with over a dozen specific measures. These include, for example, 2 instances of filling the same drug 2 or more times within a 2-day period, exceeding a maximum therapeutic dose of a drug or multiple drugs in the same class for more than 4 weeks if the prescriptions are obtained from more than 1 prescriber, and receiving 2 or more controlled substances from more than 1 pharmacy or more than 1 prescriber in at least a 4-week period.³⁵

MLIP Outcomes Literature

Despite the widespread use of MLIPs in 46 states, a significant dearth of information exists in the published literature evaluating controlled substance lock-in programs. Only 2 peer-reviewed studies could be identified that directly assessed outcomes from the MLIP. A few states share some evaluation data of their programs, but these are almost exclusively focused on the economic effects of MLIPs.

An abstract published in *Value in Health* in 1998 describes a program evaluation of the Louisiana MLIP following an expansion of this program.³⁶ Two years of Medicaid claims were analyzed for 1,490 beneficiaries meeting the state's enrollment criteria. The authors observed a significant increase in prescriptions filled at a single pharmacy following MLIP enrollment. The lock-in program was also associated with a significant reduction in polypharmacy, use of Schedule II controlled substances, and overall prescription costs. The program did not significantly affect noncontrolled medications taken for chronic conditions.

The second published piece was a 2009 research brief in the *Journal of the Oklahoma State Medical Association*.³⁷ It presents results of an internal evaluation of Oklahoma's lock-in program. The authors studied Medicaid claims of 52 locked-in enrollees over 12 months. They found a significant decrease in narcotic analgesic prescriptions, use of multiple pharmacies, multiple physicians, and emergency care following MLIP enrollment. The Oklahoma MLIP also had no significant association with maintenance medication use for chronic conditions. The program was associated with average savings for the state of \$600 per lock-in enrollee.

A 2010 article from the *Journal of Hospital Marketing & Public Relations* centered on the Wisconsin Medicaid lock-in program, but the effect of the program was not specifically examined.³⁸ The authors validated an electronic, claims-based decision-support tool that automatically identified overutilizers of care.

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TABLE 2 Enrollment Criteria for States with Publicly Available Medicaid Lock-In Eligibility Details^a

State ^b	Assessment Period ^c	Prescription Criteria	Prescriber Criteria	Pharmacy Criteria	Other Criteria
Alaska ^{A2}	Monthly for 2 consecutive months	Receipt of prescriptions with frequency ≥ 2 standard deviations of mean; Receipt of prescriptions from ≥ 1 prescribers in total average daily doses exceeding those recommended in <i>Drug Facts & Comparisons</i> ^d			Provider referral
Colorado ^{A5}	3 months	≥ 3 drugs in the same therapeutic category; ≥ 16 prescriptions		≥ 3 pharmacies	Provider referral
Idaho ^{A12}	60 days	≥ 6 benzodiazepine claims; ≥ 8 opiate claims; ≥ 3 tramadol claims; ≥ 480 tramadol tablets; ≥ 6 months of continuous muscle relaxant use	Use of “multiple” prescribers	Use of “multiple” pharmacies	“Excessive” ED use; Drug dependence or abuse history; Provider referral
Kentucky ^{A21}	2 consecutive 180-day periods	≥ 10 different prescription drugs	≥ 5 prescribers	≥ 3 pharmacies	≥ 4 ED visits for nonemergency; ≥ 3 different EDs used for non-emergency
Massachusetts ^{A27}	3 months	≥ 11 Schedule II-IV prescription fills AND	≥ 4 prescribers OR	≥ 4 pharmacies	
Michigan ^{A29}	3 months	≥ 5 claims for CS or muscle relaxants; “Aberrant” CS utilization patterns over 1 year	≥ 2 prescribers for duplicate services	≥ 3 pharmacies	≥ 3 ED visits; Repeat ED use with no follow-up; Repeat ED use for nonemergency
Nevada ^{A36}	60 days	≥ 9 CS claims			
New Hampshire ^{A37} (any 3 criteria)	90 days	≥ 3 drugs in same drug class; Same/similar drug received from different pharmacies within 2 days; 100 units per prescription per 7-day supply	≥ 3 prescribers	≥ 3 pharmacies	≥ 2 ED visits
New Jersey ^{A38}	NR	≥ 2 prescription fills “in excess of what any one prescriber would intend”	Use of “multiple” prescribers	Use of “multiple” pharmacies	Presentation of forged or altered prescription
North Carolina ^{A40}	2 consecutive months	≥ 6 benzodiazepine claims; ≥ 6 opiate claims	≥ 3 prescribers		Provider referral
Oregon ^{A47}	6 months	“Exhibit patterns of drug misuse”	Use of “multiple” prescribers to obtain same/similar drugs	≥ 3 pharmacies	
Utah ^{A55}	12 months	≥ 6 CS prescription fills ^e	≥ 3 prescribers	≥ 4 pharmacies	≥ 4 primary care providers visited; ≥ 4 specialists visited; ≥ 5 ED visits for nonemergency
Virginia ^{A58}	3 months	Exceed 200% maximum therapeutic dose of drug class or 100% maximum therapeutic dose of drug class from ≥ 2 prescribers for period ≥ 4 weeks; Duplicate prescription fills within 2 days on 2 separate occasions; ≥ 2 CS prescriptions from ≥ 2 pharmacies or ≥ 2 prescribers for period ≥ 4 weeks; ≥ 24 prescriptions; ≥ 12 CS prescriptions	≥ 3 prescribers; ≥ 2 physician visits for similar diagnoses within 2 days	≥ 3 pharmacies	≥ 3 ED visits for nonemergency; Provider referral; Pattern of noncompliance
Washington ^{A59} (any 2 criteria)	3 months	≥ 10 prescriptions; CS prescriptions from ≥ 2 prescribers (automatic eligibility if this criterion met)	≥ 4 prescribers	≥ 4 pharmacies	Similar services from ≥ 2 providers on same day; ≥ 10 office visits; ≥ 2 ED visits (automatic eligibility); “At risk” fraudulent behavior (automatic eligibility)
West Virginia ^{A62}	60 days	Suboxone therapy in last 30 days; ≥ 6 claims within single class with abuse potential; ≥ 6 claims from ≥ 3 classes with abuse potential; ≥ 16 claims for all drugs with abuse potential; “Doctor shopping” involving ≥ 6 claims for drug with abuse potential from ≥ 3 prescribers filled at ≥ 2 pharmacies	≥ 3 prescribers of drugs with abuse potential		History of dependence; History of poisoning/overdose
Wyoming ^{A65}	NR		≥ 2 prescribers	≥ 2 pharmacies	

Note: Information in this table reflects evidence identified in published literature and publicly available sources online.

^aEligibility for lock-in enrollment contingent on meeting 1 individual criterion listed within the state, except where noted as otherwise.

^bCitations for the reference footnotes in this table (A1, A2, A3, etc.) are located in the Appendix, which is available in the online article.

^cAssessment of individual lock-in enrollment criteria occurs over the designated time period in this column, except where noted with criterion as otherwise.

^dDrug Facts and Comparisons is an online and print drug information database available from Wolters Kluwer Health, Inc.

^eCS utilization criteria for Utah Medicaid Restriction Program assessed over time period shorter than 12 months but exact duration unavailable.

CS = controlled substance; ED = emergency department; NR = not reported.

This decision-support tool used lock-in enrollment criteria previously established by the state. Although the article does not provide insight into the effectiveness of the lock-in program in reducing nonmedical use of controlled substances, it does provide recommendations to other states considering a similar automated system for identifying overutilizers of Medicaid services. The authors report that the number of pharmacies visited by beneficiaries was the best predictor of controlled substance abuse. In addition, the Wisconsin decision-support tool improved detection accuracy of controlled substance-related fraud and abuse among beneficiaries.

Nonpublished MLIP Outcomes Evidence

Nonpublished MLIP evaluation data were publicly available for 9 additional states, which largely reported economic outcomes. Meeting minutes from Connecticut's Drug Utilization Review (DUR) Board indicate that the combined efforts of their retrospective DUR program and lock-in program resulted in savings of \$3.7 million and \$2.4 million for the state in 2009 and 2011, respectively.^{39,40} A 2008 evaluation of Iowa's Medicaid Integrity Program and a recent news article estimates their lock-in program saved the state \$2 million annually.^{41,42} Also, the North Carolina Department of Health and Human Services issued a press release stating that in its first year of operation, their controlled substance lock-in program, which enrolled over 2,000 beneficiaries, resulted in \$5.2 million in Medicaid savings and over 2 million fewer narcotic analgesic pills prescribed to program enrollees.⁴³ The most comprehensive MLIP evaluation data come from the state of Washington in 2009, which demonstrated substantial cost savings for the Medicaid program, as well as reductions in controlled substance use and unnecessary health care utilization.⁴⁴

Next Steps for Leveraging MLIP Potential

The high prevalence of Medicaid lock-in programs—coupled with the promising, albeit limited, evaluation data that are available—suggest that MLIPs are poised to serve a valuable role in the fight against nonmedical controlled substance use. The Centers for Medicare & Medicaid Services (CMS) even recommended in 2012 that states turn to MLIPs to bolster their policy initiatives for preventing nonmedical controlled substance use and diversion. This CMS report implores states to implement effective MLIPs based on best practices.⁴⁵ However, maximizing the utility of MLIPs will require much deeper understanding of the ideal criteria for enrollment, the potential unintended consequences of MLIP enrollment, and the feasibility of coordination with other controlled substance policy efforts and surveillance systems.

Filling MLIP Knowledge Gaps

In recent years, researchers have worked toward identifying predictors of, and defining, risky controlled substance—valuable information for designing MLIP enrollment criteria.⁴⁶⁻⁴⁹

However, the high degree of variability seen in MLIPs across states and the limited availability of actionable program evaluation data for public consumption suggest much work is needed to establish MLIP standards. Development of MLIP best practices will require a more concerted effort on the part of researchers and policymakers to work together to rigorously evaluate MLIPs for purposes beyond proprietary, internal use.

As mentioned previously, data from 2 published lock-in program evaluations showed no significant association between MLIP enrollment and access to maintenance medications for chronic conditions. However, it is unknown to what extent controlled substance lock-in programs may affect access to pain medications for patients with legitimate medical need of intensive pain therapy, such as cancer patients. Investigations into whether this problem occurs, if so, to what extent, and how it can be minimized will be necessary moving forward.

Other potential unintended consequences of MLIP enrollment should also be subject to rigorous investigation. Individuals highly motivated to abuse, misuse, or divert controlled substances are generally still capable of bypassing the lock-in program restrictions and purchasing a controlled substance prescription out-of-pocket, despite such behavior constituting fraud. Examining the incidence of this behavior and potential mitigation strategies should be a priority, since it results in continued nonmedical use of controlled substances and wastes program resources. In addition to educating providers on how to identify and handle this fraudulent behavior, states should investigate the feasibility of emerging strategies to prevent circumvention of the lock-in program restrictions, including targeted care coordination and linking MLIPs to existing PDMP surveillance systems.

Improving Care Coordination and Enrollee Perception of MLIPs

Currently, most Medicaid agencies appear to have little ongoing interaction with MLIP enrollees after locking them in, such as recommendations or referrals to pain management specialists or substance use treatment, if warranted. Beneficiaries in these states may view enrollment in a lock-in program as punishment and be more inclined to disregard its restrictions. MLIP enrollment is an underutilized opportunity to provide targeted care and education to individuals that abuse or misuse controlled substances. Montana Medicaid recently revamped its MLIP to achieve these ends.⁵⁰ Their qualifying beneficiaries are enrolled as “clients” in a lock-in program branded as Team Care—a multidisciplinary medical home. Team Care clients receive highly coordinated, interdisciplinary care and extensive health education during the 24-month enrollment period. By promoting Team Care to Montana Medicaid beneficiaries as a positive, patient-centered service, enrollees may be more likely to adhere to the lock-in restrictions. This may prove to be a preferred model for other state programs.

Coordinating State-Level Policy Efforts

The proliferation of PDMPs also provides an untapped opportunity to bolster the impact of MLIPs on identifying unsafe controlled substance use and providing better medical management for these patients. At the very least, Medicaid agencies should actively encourage prescribers and pharmacists to increase their utilization of prescription drug monitoring programs. PDMPs capture all dispensed controlled substance prescriptions regardless of payer. Providers actively using PDMPs can identify locked-in patients circumventing the program and provide appropriate education or refer them to program administrators. A much more meaningful, systems-level approach for leveraging the value of PDMPs, though, would result from dynamic integration of PDMP surveillance data with the state's Medicaid prescription claims data. Such an automated system would allow MLIP administrators to identify lock-in enrollees circumventing the program restrictions to obtain controlled substances and reveal opportunities to optimize MLIP implementation and care management. Momentum is already building to increase the interstate cooperability of PDMP systems.⁵¹ Any such effort to combat nonmedical controlled substance use through smarter, integrated data systems should incorporate automated linking to prescription claims data from payers operating a controlled substance lock-in program.

Conclusions

Medicaid controlled substance lock-in programs are highly prevalent, yet highly diverse. MLIPs appear to be associated with significant cost savings for states, but there is a limited evidence base from which to inform optimal program design and understand their impact on public health. A concerted, collaborative effort on the part of researchers and policymakers to establish best practices for MLIPs and evaluate patient outcomes would not only aid Medicaid administrators in optimizing established programs, but could spur the adoption of validated lock-in strategies among other non-Medicaid payers for the purposes of combating nonmedical prescription drug use.

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