

The Implementation of Opioid Prescribing Report Cards in Medicaid Managed Care: A Community Quality Collaborative

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Philadelphia, Pennsylvania, is an urban epicenter of the opioid epidemic.¹ Heroin and synthetic opioids such as fentanyl resulted in more than 1000 overdose deaths in Philadelphia in 2019, representing one of the highest death rates among metropolitan areas in the United States.² Beyond mortality, opioid use disorder (OUD) has far-reaching consequences across the community, with links to criminal justice involvement³ and higher rates of neonatal abstinence syndrome and foster care placements.^{4,5}

For many patients with OUD, their first experience with opioids was not illicit. Instead, it occurred in a physician's office with a legal prescription for opioids.⁶ Billions of opioid prescriptions have been written in the past few decades, and surveys report that upward of 80% of new heroin users began with prescription opioids.^{7,8} Although many of these prescriptions adhere to clinical guidelines, others needlessly place patients (and their family and friends⁹) at increased risk of developing OUD.¹⁰

To curb inappropriate opioid prescriptions, myriad state-level policies have been introduced (eg, pharmacies requiring patients to show identification to pick up opioid prescription fills).¹¹ Yet states can be slow to implement policies that have been shown to be effective. For example, it took more than a decade for some states to institute prescription drug monitoring programs (PDMPs).¹²

Locally grown policies may offer some advantages, including institutional knowledge of underlying population problems and existing relationships across stakeholder groups. One recent example is Philadelphia's Medicaid Opioid Prescribing Initiative, which was intended to improve the appropriateness of opioid prescriptions in Philadelphia County. Many of the participants were already working together on other public health initiatives in the county. Its first task was instituting a performance feedback initiative in which thousands of local Medicaid providers received customized report cards detailing their opioid prescribing relative to their peers.

Here we present details of this community quality collaborative, which included public health officials and Medicaid managed care organizations.¹³ This case study points to the potential value of county-level collaboration in combating the opioid epidemic, particularly the unique role of managed care organizations, and

ABSTRACT

Philadelphia, Pennsylvania, is an urban epicenter of the opioid epidemic, and inappropriate opioid prescribing remains a top concern. To help address this issue, the Philadelphia Medicaid Opioid Prescribing Initiative, a type of community quality collaborative, mailed thousands of local Medicaid providers an individualized prescribing report card in 2017 and 2018. The report card featured details of providers' opioid prescribing, including peer comparison measures and inappropriate prescribing measures like concomitant opioid and benzodiazepine prescribing. This case study describes the unique process of developing and distributing the opioid prescribing report cards, with a particular focus on the role of Medicaid managed care organizations. Using Medicaid pharmacy claims, the extensive variation in prescribing measures within and across specialties is also illustrated. The report card's implementation points to the potential value of collaborations between public health departments and Medicaid managed care organizations and can provide insight for other locally grown policies.

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TAKEAWAY POINTS

This article describes the Philadelphia Medicaid Opioid Prescribing Initiative that was launched by a multidisciplinary team and mailed local Medicaid providers individualized prescribing report cards.

- ▶ To our knowledge, Philadelphia is the first municipality to develop and deliver its own individualized opioid prescribing report cards to local Medicaid providers. We describe the unique process of creating and distributing the prescribing report cards, which can be replicated by other municipalities.
- ▶ The implementation of these prescribing report cards showcases the unique role that municipalities have played in combating the opioid epidemic and points to the potential value of collaborations between public health departments and managed care organizations.
- ▶ The prescribing report cards reveal substantial variation in all measures, within and across provider specialties.

provides insight for other policy interventions instituted at a local level. To our knowledge, Philadelphia is the first municipality to develop and deliver its own opioid prescribing report card.

Background

Public and private reporting on the performance of health care providers is common practice.¹⁴ Whereas public reporting is often used to inform patients about the quality of health care services, private reporting tends to target providers.¹⁴ A common type of private reporting is performance feedback, which is sometimes presented in report cards.¹⁵ Performance feedback has been extensively studied, and a review of randomized trials points to a positive effect overall.^{16,17} However, the success of performance feedback depends on providers' baseline performance and the method, source, and duration of feedback.¹⁸

The major barrier to implementing performance feedback is the availability of verified information regarding provider performance. For opioid prescribing, PDMPs are one potential source of administrative data. Since the onset of the opioid epidemic, the number of states instituting PDMPs has grown rapidly, with programs now operational in almost every state.¹⁹ Yet only a few states have launched report cards using this information, and there is a paucity of academic literature on the implementation and impact of report cards using PDMPs.¹⁹

Another source of performance feedback is administrative data collected by insurers and managed care organizations (MCOs).²⁰ A growing number of state Medicaid programs are creating performance feedback initiatives, and many are involving Medicaid MCOs, which are also encouraged to introduce quality improvement programs.²¹ However, in states such as Pennsylvania, Medicaid MCOs are operated at the county level, presenting an administrative barrier to implementing statewide programs.²²

Developing the Report Cards

In 2017, Community Behavioral Health (CBH), the behavioral health MCO in Philadelphia County for Medicaid enrollees, approached Pennsylvania's Office of Medical Assistance Programs to discuss the need to monitor opioid prescribing in Philadelphia. CBH was

experiencing an increased demand for substance use disorder treatment. Informal investigations revealed inappropriate prescribing practices, such as the concurrent use of opioids and methadone maintenance.

Like several other states, Pennsylvania "carves out" behavioral health from physical health, and state Medicaid officials were interested in supporting CBH in developing a tool that could subsequently be taken over by the state's PDMP. CBH was in a unique position to lead the report card initiative because it was the sole behavioral health MCO in Philadelphia, with up-to-date Medicaid eligibility records,

pharmacy claims, and physical health claims, in addition to behavioral health claims for the county's Medicaid population. By comparison, there were 4 physical health MCOs that could access only the claims of their Medicaid enrollees.

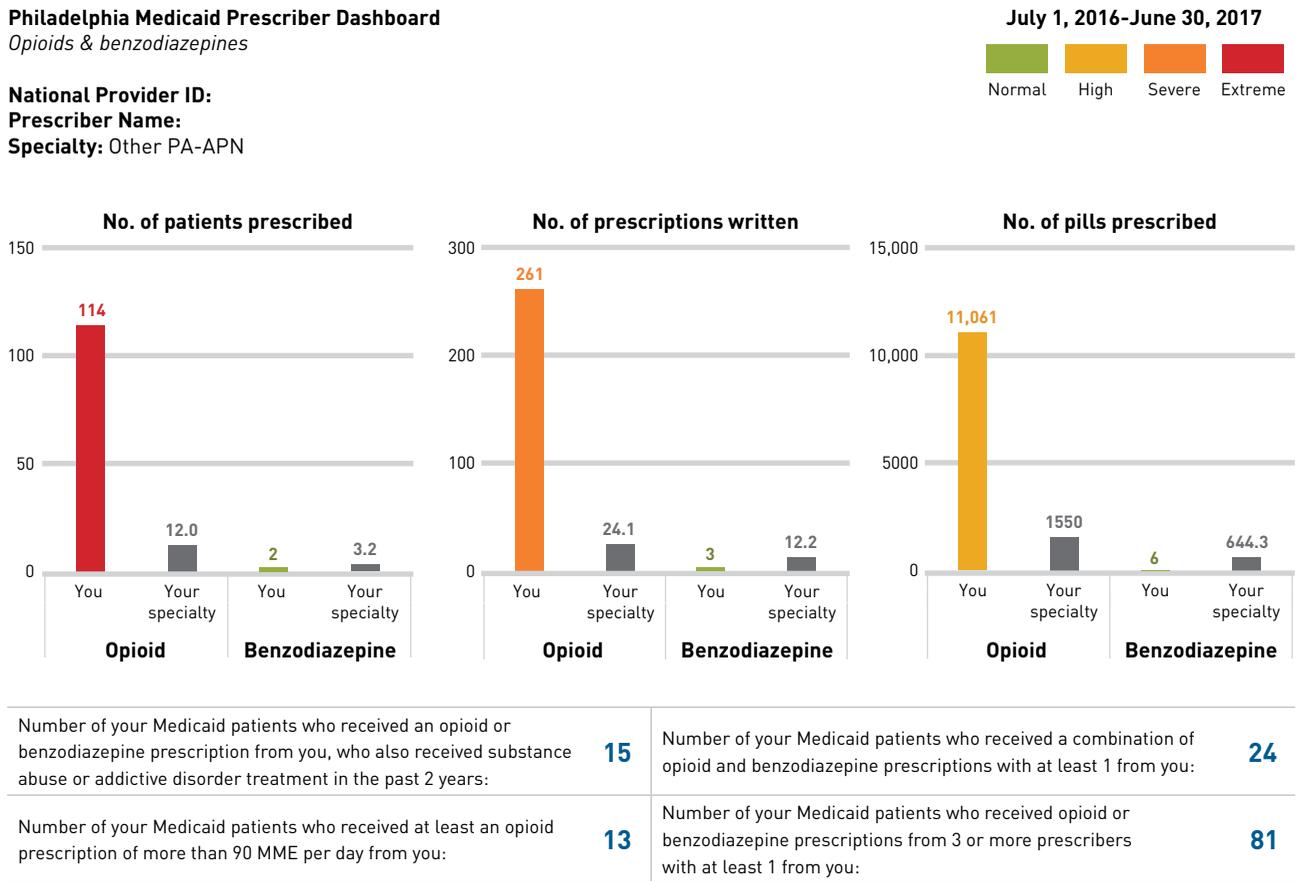
Report cards were envisioned as a complementary initiative to the PDMP. Although providers could search for opioid prescriptions of their patients using the PDMP, many were not actively using the resource.²³ Even when they did use the PDMP, providers could not compare their own prescribing with that of their peers, nor could they see all controlled substances. Prior to Act 191 of 2014, Pennsylvania's PDMP reported Schedule II controlled substances only. Also, prescriptions for benzodiazepines, a Schedule IV controlled substance, were reportable beginning in 2017.²⁴

After receiving support from state officials, CBH convened a project team of stakeholders across Philadelphia, including Philadelphia's Department of Public Health and Department of Behavioral Health and Intellectual disAbility Services, the 4 physical health Medicaid MCOs, and researchers from the University of Pennsylvania's Center for Mental Health ("Penn"). CBH created an internal management team consisting of physicians, pharmacists, epidemiologists, health economists, and data managers. It also appointed an administrative assistant to coordinate the project's activities.

The project team members agreed that report cards could help close gaps in information regarding providers' prescribing, but they felt that the report card should be educational rather than punitive. To design the report card, researchers from Penn reviewed the literature on existing report card initiatives and performed preliminary analyses of the pharmacy claims. The literature review identified a technical assistance report prepared by Brandeis University researchers that included templates of opioid report cards, which were developed by several states in conjunction with their PDMPs.¹⁹ Arizona's model served as the basis for Philadelphia's report because it had design features and measures that were consistent with the interests of the project team. It consisted of a single page displaying various prescribing measures, some with peer comparison.

In addition to aggregate opioid prescribing, other measures were considered. The team was interested in benzodiazepine prescribing and concomitant opioid-benzodiazepine prescribing. Since 2012,

FIGURE. Example of Opioid Prescribing Report Card, First Iteration



ID, identifier; MME, morphine milligram equivalents; PA-APN, physician assistant/advanced practice nurse.

more than 2000 overdose deaths in Philadelphia have involved benzodiazepines, which are among the most abused psychotropic drugs and should not be used concurrently with opioids due to an increased risk of respiratory depression.²⁵ The team also added high-dose opioid prescribing as a measure. Clinical guidelines suggest a daily dose lower than 50 to 90 morphine milligram equivalents (MME), but study results have shown that nearly 15% of patients have higher-than-recommended doses.¹⁰ A final measure flagged opioid prescriptions to patients with a history of substance use treatment.

Once measures were agreed upon, the methodology for constructing peer comparison was determined. The team used the National Provider Identifiers, located in pharmacy claims, and linked them to self-identified taxonomy codes of specialties in the National Plan and Provider Enumeration System (NPPES). A group of physicians, pharmacists, and epidemiologists at CBH grouped 266 specialties into 27 broader categories using the Health Care Prescriber Taxonomy Code and Specialty crosswalk from the National Uniform Claim Committee.

Providers received a report card only if they prescribed opioids to 10 or more Medicaid patients over a 12-month period. Any

prescription written to Philadelphia Medicaid enrollees could be included in the report cards, even if providers did not practice in Philadelphia County.

Implementing the Report Card

Over the course of a few months, the project team agreed on a report card design (Figure). For the first 6 measures, report cards included a ranking system for peer comparison purposes. Data were aggregated within specialties and a mean and SD were estimated. Rankings were categorized as extreme (3 SDs above the mean), severe (2 SDs above the mean), high (1 SD above the mean), and normal (the mean or below). Providers who prescribed opioids to fewer than 10 patients were still included in peer comparison calculations.

The first iteration of report cards was mailed in December 2017 to 2632 providers. The mailings included recommendations for best prescribing practices from the CDC and information on an upcoming continuing medical education program focused on evidence-based tools to fight the opioid epidemic.²⁶ Links to the PDMP and a list of Philadelphia's substance use treatment providers were also included.

TRENDS FROM THE FIELD

TABLE. Prescribing Report Card Measures, by Specialty*

Specialty	No. of Medicaid providers	Opioids		Benzodiazepines		No. of Medicaid providers receiving a prescribing report	Inappropriate prescribing measures		
		Mean No. of patients with Rx	Mean No. of Rx per patient	Mean No. of patients with Rx	Mean No. of Rx per patient		Concomitant opioid and benzodiazepine Rx	High-dose opioid Rx	Opioid or benzodiazepine Rx to patient with SUD
Dentists, general	741	20.6	1.3	0.3	1.3	231	16.4%	0.3%	12.4%
Dentists, surgical	201	43.1	1.1	0.2	3.0	58	9.8%	0.2%	7.0%
Emergency medicine	1165	11.8	1.1	1.5	1.1	289	25.9%	4.7%	14.9%
Family medicine	1173	16.2	4.3	8.5	4.7	313	39.1%	17.0%	11.4%
Internal medicine	2175	8.4	3.6	3.4	4.2	405	37.5%	20.2%	13.4%
Ob-gyn	414	12.4	1.1	0.4	2.3	137	9.2%	1.9%	5.3%
Other	3074	12.0	2.0	3.2	3.8	644	28.7%	13.7%	11.9%
Pain medicine	113	20.5	4.8	2.8	2.9	35	44.2%	20.4%	8.4%
Physical medicine	143	14.0	5.8	2.7	3.9	45	39.4%	20.6%	9.8%
Podiatry, surgical	126	18.0	2.8	0.2	2.0	51	29.0%	4.4%	14.5%
Psychiatry	676	0.6	2.7	28.8	5.9	5	49.1%	42.3%	14.1%
Surgery	1039	12.9	1.9	0.6	2.8	269	23.3%	7.7%	11.3%
Urology	130	7.4	1.6	0.7	3.3	26	27.4%	5.2%	7.9%

MME, morphine milligram equivalents; ob-gyn, obstetrics/gynecology; Rx, prescription; SUD, substance use disorder.

*Aggregate opioid and benzodiazepine prescribing measures include any provider who prescribed at least 1 opioid or 1 benzodiazepine to Medicaid patients between July 2016 and June 2017. Inappropriate prescribing measures were calculated only for those providers who received a prescribing report card, meaning they prescribed opioids to 10 or more Medicaid patients. Listed specialties had at least 100 unique providers. The "other" category includes physician assistants and advanced practice nurses. High-dose prescriptions were defined as greater than 90 MME/day.

Report cards contained contact information for the Department of Public Health, where comments and questions could be submitted. All feedback was reviewed by the pharmacy director and medical director at CBH. Fewer than 10 providers responded, with some saying that the report cards included valuable information. Providers also referred to a key limitation: Report cards included only Medicaid patients. Although Medicaid patients have been disproportionately affected by the opioid epidemic,²⁷ the providers argued that prescribing report cards would be more meaningful if they included a provider's complete patient panel. This would have been possible had the data source been Pennsylvania's PDMP or an all-payer claims database, the latter of which is growing in popularity but has not been used widely for performance feedback.²⁸

After the first mailing, the project team redesigned some aspects of the report card. Inconsistencies across waves make an evaluation more complex, so only 3 changes were ultimately instituted: report cards included 6 months of prescribing rather than 12; the threshold of 90 MME/day was lowered to 50 MME/day; and the proportion of opioid prescriptions lasting longer than 7 days was added. An excessive duration of opioid prescriptions was another concern because there is little evidence of the effectiveness of opioids for noncancer pain in the long term.²⁹ In July 2018, a second wave of prescribing report cards was sent to 1495 providers.

Results From the Report Cards

Report cards revealed substantial variation in opioid prescribing, highlighting why opioid-related policies cannot be one size fits all.

While a provider's peer comparison categorization could be normal for one measure and extreme for another, specialties explained much of the variation in prescribing (Table). The mean number of Medicaid patients filling an opioid prescription over 12 months (among all Medicaid providers who prescribed at least 1 opioid or benzodiazepine) was only 0.6 for psychiatry but higher in pain medicine (20.5 patients), emergency medicine (11.8 patients), and surgery (43.1 patients for surgical dentists, 18.0 for surgical podiatrists, and 12.9 for general surgeons). Benzodiazepine prescribing, which was also included in report cards, was common in psychiatry (28.8 patients on average) and rarer in pain medicine (2.8 patients), emergency medicine (2.0 patients), and surgery (0.2 patients for surgical dentists, 0.2 for surgical podiatrists, and 0.6 for general surgeons).

Inappropriate prescribing measures showed similar variation. Among the subset of providers who met the 10-patient threshold to receive report cards, the share of patients filling concurrent opioid-benzodiazepine prescriptions ranged from less than 10% to nearly 50% across specialties. High-dose opioid prescriptions occurred less frequently. The rate of opioid prescribing to patients with substance use disorder treatment was the lowest (< 20% across all specialties). The stark heterogeneity suggests that interventions aimed at inappropriate opioid prescribing may need to be tailored for specialties.

The introduction of report cards in Philadelphia County illustrates the potential trade-offs involved in state- vs county-level initiatives. On the one hand, interventions may be slower to implement by states given the increased number of stakeholders and competing

priorities. The smaller size of local governments means fewer stakeholders, many with existing relationships, thus making quality improvement interventions easier to implement. For example, CBH was already a member of the Philadelphia Opioid Task Force in 2017, which gave it ready access to public health officials.

On the other hand, state-level initiatives benefit from larger budgets and data infrastructure that can support the development and sustainability of programs. The use of the PDMP to create provider report cards would allow for prescriptions from multiple insurers to be used. Perhaps the best scenario is a partnership between state and local organizations, an approach that was used by Pennsylvania Medicaid during the development of a dashboard for antipsychotic prescribing to youth in foster care.³⁰ In this program, children with inappropriate prescriptions are flagged by the state, then followed up by the county's Medicaid MCO as part of its quality improvement efforts.

Some limitations are worth noting. Report cards included only prescriptions filled and reimbursed by Philadelphia Medicaid, and some specialties had few providers, which can be problematic for peer comparison. In addition, a small number of providers claimed that their specialty was inaccurate (although regulations require providers to update the NPPES within 30 days of any changes, it appeared that some providers had not done so³¹). Also, some measures involved multiple providers, such as concurrent opioid-benzodiazepine prescribing, which can undermine individualized interventions. For example, nurse practitioners or physician assistants may have been the designated prescribers for physicians (in Pennsylvania, nurse practitioners must adhere to a written collaborative agreement with physicians to prescribe³²). Finally, the report cards issued to prescribers had no financial incentives but were meant to increase awareness and provide a comparison that would guide further practice.

Critical questions remain, including around the report cards' effectiveness. An evaluation using neighboring counties as a comparison group is in progress. There are also questions of cost-effectiveness, although report cards are relatively low cost compared with other types of performance feedback, which can justify even small changes in prescribing outcomes.³³ Other potential consequences include substitution to nonopioid pain medications or improper tapering from opioids and benzodiazepines that precipitates withdrawal, which can be dangerous to patients.

There is also the COVID-19 epidemic to consider, which caused major disruptions as providers drastically limited face-to-face visits.³⁴ COVID-19 may have exacerbated the opioid epidemic due to the dramatic drop in health care utilization, including the provision of medication-assisted treatment and the loss of employer-sponsored insurance.^{35,36} There are concerns that a perfect storm is looming as impending state budget shortfalls put additional pressure on public-sector programs to provide services such as substance use disorder treatment.³⁷ As with the opioid epidemic, COVID-19 requires tailored responses to prevention, testing, and vaccination, which may benefit from existing community quality collaboratives. Medicaid

MCOs are in a unique position to help municipalities respond, given their access to rich, up-to-date patient-level information.

In the meantime, inappropriate opioid prescribing remains a top concern and municipalities are taking novel approaches to address it. The Philadelphia Medicaid Opioid Prescribing Initiative, a community quality collaborative involving the Philadelphia Department of Public Health and Medicaid MCOs, demonstrates the potential value of these approaches. ■

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