Research Article



Opioid and alcohol use disorder medication availability in outpatient care: national estimates & potential policy levers

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Abstract

Medications for opioid and alcohol use disorder (MOUD/MAUD) are efficacious, important components of relapse prevention care, and markedly underused. Yet, not all programs treating substance use disorders (SUD) offer them. Using the Substance Abuse and Mental Health Services Administration's 2022 National Substance Use and Mental Health Services Survey (N-SUMHSS), for outpatient programs (excluding opioid treatment programs) that provided "primarily SUD services" (SUD) or "primarily mental health but also SUD services" (MH/SUD; N=9921 programs), we identified program characteristics associated with providing MOUD or MAUD, focusing on potential policy levers (state licensure/certification, national organization accreditation) that could increase MOUD/MAUD access. We found that only approximately half (51%) provide MOUD and fewer (45%) provide MAUD. State licensure/certification was negatively associated with providing these medications, while national organization accreditation was positively associated. However, states varied widely in these associations. Additionally, SUD programs were less likely to offer MOUD/MAUD compared with MH/SUD programs. These findings demonstrate missed policy opportunities for states and national accreditation organizations to move SUD care into evidence-based practice.

Key words: substance use disorders; medications for alcohol use disorder; medications for opioid use disorder; outpatient substance use disorder treatment; quality of care; access & use.

Introduction

Opioid and alcohol use disorders (OUD, AUD) are prevalent¹ and associated with considerable morbidity and mortality.²⁻⁶ Efficacious, guideline-recommended medications exist (MOUD and MAUD, respectively)^{7,8} that support recovery and reduce morbidity and mortality from OUD and AUD.^{9,10} However, in practice, they are substantially underused: only 18% of individuals with OUD received MOUD and only 1.9% of those with AUD received MAUD in 2023.¹

Specialty behavioral health programs-substance use disorder (SUD) programs that treat only SUD and mental health programs that also treat SUD (MH/SUD)—are important providers of OUD and AUD care. These programs have specialty expertise in caring for patients with SUD, and they provide SUD care to millions of adults in the US—in 2023, they each provided SUD care to over 2.5 million adults. Given their SUD expertise, it would be reasonable to expect that patients treated in these programs could receive MOUD and MAUD there. Yet, prior research describes low rates of SUD programs offering MOUD, albeit increasing over time. However, to our knowledge, research has not examined MOUD availability in MH/SUD programs—also important providers of SUD care—nor the availability of MAUD in specialty behavioral health programs

(ie, SUD or MH/SUD programs). Given the rising morbidity and mortality from alcohol use,⁶ and the very low rates of MAUD use among those with AUD,¹ a broader examination of the availability of MAUD as well as MOUD and in the fuller array of specialty programs that treat SUD is warranted.

Two policy levers could play a role in MOUD and MAUD availability in SUD and MH/SUD programs. One is licensure or certification/accreditation by state agencies (ie, state licensure/certification) and another is accreditation by national organizations. States have control over standards of care provided by treatment programs. State agencies, through licensure/certification, set requirements for treatment programs and frequently monitor compliance; often these requirements are considered a minimum standard of care required by programs that operate in that state. 15 Additionally, programs may voluntarily seek to demonstrate they provide a nationally (or internationally) recognized standard of healthcare quality by seeking accreditation by a national accreditation organization. Several national accreditation bodies have standards for behavioral health care, such as The Joint Commission (TJC) or the Commission on Accreditation of Rehabilitation Facilities (CARF). Achieving accreditation by national organizations goes beyond demonstrating a minimal standard of care. It is considered an indicator of

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program quality¹⁶ and is marketed as a commitment to patient safety, care quality, and continuous quality improvement.^{17,18}

In this study, we examined program characteristics associated with offering (ie, being able to prescribe to patients in their program) MOUD or MAUD in outpatient behavioral health care programs that treat SUD. We focused on the role of state licensure/certification and national organization accreditation because these policy levers could potentially increase evidence-based SUD care.

Methods

We used the Substance Abuse and Mental Health Services Administration (SAMHSA) 2022 National Substance Use and Mental Health Services Survey (N-SUMHSS)¹⁹ to develop a cohort of non-intensive (ie, not partial hospital, not intensive outpatient programs [IOP]) specialty outpatient programs that treat SUD (see Appendix Figure S1 for consort diagram and further details of exclusion/inclusion criteria). The 2022 N-SUMHSS was fielded March through December 2022. We excluded Opioid Treatment Programs (OTPs) because they are already required to provide MOUD as part of their federal licensing requirements.

Program characteristics

We examined the following program-level dichotomous characteristics: whether the program provides "primarily SUD services" (ie, SUD) or "primarily mental health services but also provides SUD services" (ie, MH/SUD); accepts state, local or federal funds; accepts Medicaid; is associated with a faith-based/religious organization; and profit status.

The N-SUMHSS asks about state licensure/certification and national organization accreditation in one question with multiple response options. We defined state licensure/certification as present if a program reported it was licensed, certified, or accredited by the state mental health authority, state substance use treatment agency, state department of health, or state or local Department of Family and Children's Services (Appendix Table S1). We defined national accreditation as present if a program reported it was accredited by TJC, CARF, Council on Accreditation (COA), National Committee for Quality Assurance (NCQA), or the Health Care Facilities Accreditation Program (HFAP).

Two state-level variables were obtained from other sources (Appendix Tables S2 and 3). We used the state's 2021 per capita opioid mortality rate, ²⁰ categorized into quartiles, given our hypothesis that states with higher opioid death rates may be more likely to require that MOUD be provided within treatment programs (or, perhaps, the community culture may make this more likely or acceptable). We also included this information in the MAUD analyses, hypothesizing that there could be spillover effects to MAUD availability. MOUD use increased in states implementing Medicaid expansion with the Affordable Care Act²¹⁻²⁴; therefore, we included whether the state was a Medicaid expansion state by July 2021.²⁵

Outcomes

Patient-centered care should include the option for patients to receive MOUD/MAUD in their treatment program, rather than having to forgo medication or go to another treatment program specifically for medications. Therefore, our outcomes of interest were whether a program "offered" MOUD and whether it

"offered" MAUD, defined as whether the program reported that it prescribed these medications on-site. MOUD was defined as buprenorphine and naltrexone offered for OUD care (methadone was not included since we excluded OTPs from the sample); MAUD was defined as naltrexone, acamprosate, and disulfiram offered for AUD care. We defined variables for each medication separately and as a group (ie, any MOUD, any MAUD).

Statistical analyses

We first described the programs in terms of their organizational and state-based characteristics, and stratified by SUD vs MH/SUD program. We also determined program medication characteristics (offered any MOUD/MAUD, which MOUD/MAUD, accepted patients on MOUD/MAUD but did not offer them, had an affiliate/contractual relationship with a program that prescribes MOUD/MAUD for their patients, and neither offered nor accepted patients on MOUD/MAUD).

We estimated separate logistic regression mixed-effects models (one for whether the program offered MOUD, another for MAUD) that included whether the program was state licensed/certified, nationally accredited, SUD vs MH/SUD, affiliated with a faith-based/religious organization, as well as ownership status, state opioid overdose quartile, and located in a Medicaid expansion state. Intercepts and coefficients of state licensure and accreditation were permitted to vary across states. Our primary effectiveness measure was the least-squares mean difference in program probability of offering MOUD/MAUD between state licensed/certified and nonstate licensed/certified programs, and separately for national accredited and non-accredited programs, averaged over state random effects. All covariates were set to the population means. We quantified between-state variation in state licensure/certification and national accreditation organizations with programs offering MOUD/MAUD using two different metrics: 1) the range in estimated program probability of MOUD/MAUD across states for 95% of programs using an estimate of the between-state variance component; and 2) odds ratios (Appendix Mixed Effects Logistic Regression Model).

Limitations

While N-SUMHSS is a survey of all known SUD and MH/SUD programs in the US, and considered a census by SAMHSA, it is possible that some programs are not included. Additionally, the dataset does not distinguish between programs that received a survey but are no longer operational/eligible vs those that did not respond to the survey; moreover, some apparent non-respondents might reflect mergers or name changes. Thus, we were unable to examine how our study cohort differed from programs that were operational/eligible but excluded from the N-SUMHSS data due to survey non-response. The N-SUMHSS is self-reported by programs, but program staff may misinterpret or inaccurately report the survey items. Possibly, some SUD or MH/SUD programs would not offer MOUD if they were located near or had an agreement with an Opioid Treatment Program. We are unable to adjust for this because the N-SUMHSS data do not include geographical information or program identifiers. We were unable to account for the availability of MOUD and MAUD in non-specialty settings, as these settings are not included/surveyed in the N-SUMHSS. However, our focus was on SUD and MH/SUD programs, given the important and unique role they have as providers with specialty expertise in providing SUD care. Finally, programs that report offering these medications may not in fact have any patients to whom they were prescribed. Thus, our estimates should be considered an upper bound of medication availability in the programs. Despite these limitations, the N-SUMHSS is the best source for understanding SUD and MH/SUD programs nationally, and is widely used in health policy and services research on facilities and programs that treat mental health and substance use disorders in the US. ^{13,14,26-31}

Results

Our study cohort consisted of N = 9921 specialty outpatient behavioral health programs that treat SUD (Appendix Figure S2). One-third (33%) were SUD programs and the remainder MH/SUD. Most were licensed/certified by a state authority (85%) and over half (55%) were accredited by a national organization. Forty-five percent of programs did not offer any MOUD or any MAUD (Table 1 and Appendix Table S4). Approximately half (51%) offered MOUD but only 39% offered both buprenorphine and naltrexone MOUD; 45% offered MAUD but only 22% offered all three MAUD (naltrexone, acamprosate, and disulfiram). MAUD was less commonly offered than MOUD. Also, SUD programs less commonly offered MOUD/MAUD compared to MH/SUD programs (Table 1).

After adjusting for covariates in the model, the difference in the predicted probability for the overall (ie, national) association between state licensure/certification and programs offering MOUD was negative (48% for state licensed/certified vs 63% for not state licensed/certified; difference [95% CI] = -14% [-22%, -7%]) but positive for national accreditation (61% accredited programs vs 37% non-accredited programs; difference [95% CI] = 23% [16%, 31%]) (Appendix Table S5). For MAUD, the pattern was similar: the predicted probability for the overall (national) association between state licensure/certification and programs offering MAUD was

negative (40% state licensed/certified vs 58% not state licensed/certified programs (difference [95% CI] = -18% [-27%, -10%]) and the relationship between MAUD being offered and national accreditation positive—52% accredited vs 31% non-accredited programs (difference [95% CI] = 20.0% [13.5%, 27.8%]). The highest predicted probabilities occurred for programs that were accredited but not state licensed/certified, and the lowest for those that were state licensed/certified but not accredited (Figure 1; Appendix Table S6).

Between-state variation in the association of state licensing/certification and national accreditation with programs offering MOUD/MAUD was large. For example, ninety-five percent of non-state licensed/certified and non-accredited programs had predicted probabilities that ranged between 7% and 70% in offering MOUD/MAUD across states; among licensed/certified and accredited programs that range was between 14% and 68% (Figure 2 and Appendix Figure S3).

Other associations with program characteristics also emerged (Table 2 and Appendix Table S7). SUD programs were less likely to report offering MOUD/MAUD than MH/SUD programs (MOUD OR [95% CI] = 0.84 [0.76-0.98]; MAUD = 0.61 [0.56-0.68]). Programs in states with higher opioid death rates were more likely to offer MOUD/MAUD (eg, for states in the highest opioid death rate quartile, MOUD = 2.51 [1.51-4.15] and MAUD = 2.46 [1.46-4.12]). For-profit programs (compared with non-profit) were more likely to report offering MOUD (1.19 [1.08-1.31]), but there were no differences in offering MAUD. Medicaid expansion (vs not) was not associated with a difference in whether programs offered MOUD but was associated with higher odds offering MAUD (1.56 [1.05-2.30]).

Discussion

We observed three primary findings in this national study of outpatient specialty behavioral health programs. First,

Table 1. Organizational and medication characteristics of outpatient programs that treat substance use disorders (SUD) in the 2022 National Substance Use and Mental Health Services Survey (N-SUMHSS; *N* = 9921 programs).

Program characteristics	All programs $n = 9921$	SUD programs $n = 3240$	MH/SUD programs $n = 6681$
Organizational			
State licensed/certified	8442 (85%)	2920 (90%)	5522 (83%)
National organization accredited	5466 (55%)	1676 (52%)	3790 (57%)
Associated with religious/faith-based organization	476 (5%)	180 (6%)	296 (4%)
Medicaid expansion state	7333 (74%)	2444 (75%)	4889 (73%)
Ownership status			
Private for-profit	3573 (36%)	1464(45%)	2109 (32%)
Private non-profit	5089 (51%)	1508 (46%)	3581 (54%)
Other ^a	1259 (13%)	268 (8%)	991 (15%)
2021 state opioid deaths per 100 000 population(quartiles)			
1 (34.2-77.2) [highest]	2224 (22%)	611 (19%)	1613 (24%)
2 (25.9-33.3)	3194 (32%)	983 (30%)	2211 (33%)
3 (15.7-24.5)	3113 (31%)	1240 (38%)	1873 (28%)
4 (5.7-14.1) [lowest]	1390 (14%)	406 (13%)	984 (15%)
Medication			
Offers any MOUD	5086 (51%)	1565 (48%)	3521 (53%)
Offers both buprenorphine and naltrexone MOUD	3899 (39%)	1110 (34%)	2789 (42%)
Offers any MAUD	4415 (45%)	1203 (37%)	3212 (48%)
Offers naltrexone, acamprosate, and disulfiram MAUD	2139 (22%)	571 (18%)	1568 (23%)
Does not offer MOUD or MAUD	4486 (45%)	1623 (50%)	2863 (43%)
Program does not offer or accept patients on medication			
MOUD	448 (5%)	146 (5%)	302 (5%)
MAUD	1027 (10%)	272 (8%)	755 (11%)

^aOther ownership = state government, local, or county, community, tribal, or federal government.

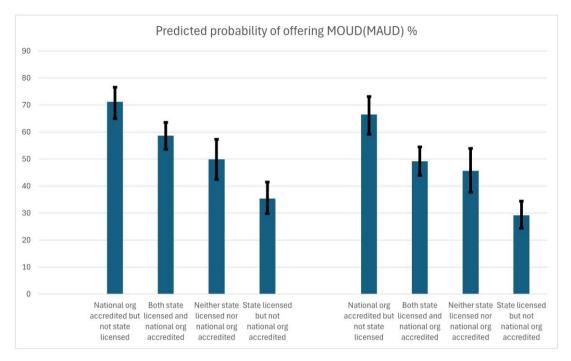


Figure 1. Mean predicted probability (national estimates) of outpatient program offering MOUD/MAUD in the 2022 National Substance Use and Mental Health Services Survey (N-SUMHSS) (N = 9221 programs).

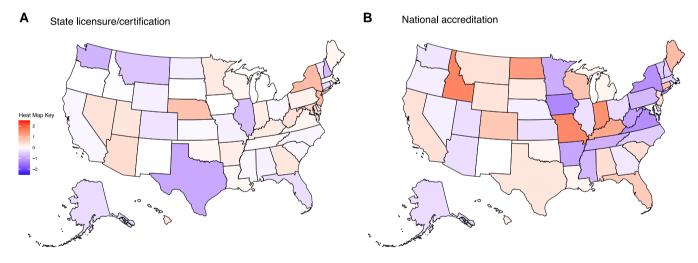


Figure 2. Variation among states in the association between: A) state licensure, and B) national accreditation on whether outpatient programs reported offering MOUD (2022 National Substance Use and Mental Health Services Survey [N-SUMHSS], N = 9921 programs). For each state, the deviation from the national association of state licensure/certification and national accreditation with MOUD outcome is plotted. Darker hues, red or purple, indicate larger differences from the national mean. (See Appendix Figure S3 for maps related to MAUD). Scale is log odds (+2 to -2).

opportunities for patients to be prescribed MOUD and MAUD remain relatively low in these programs—even more so in SUD programs. Second, licensure/certification by a state agency was negatively associated with a program offering MOUD/MAUD, while accreditation by a national organization was positively associated. Third, states varied widely in the relationship between state licensure/certification and national accreditation and whether a program offered MOUD/MAUD.

The low proportion of programs offering MOUD/MAUD is concerning. Estimates using the 2022 N-SUMHSS found similar rates to ours of MOUD being offered by SUD programs that treat OUD. ¹¹ Our study extends this literature by examining SUD medication access among a broader array of specialty

behavioral health providers (SUD and MH/SUD) and of medications (both MOUD and MAUD). To our knowledge, this is the first national estimate of reported MAUD availability in specialty outpatient behavioral health programs. Our study further extends the prior literature by examining policy levers that could potentially improve MOUD/MAUD availability, as well as other program and state characteristics and their association with programs offering MOUD (and MAUD).

We observed an increase in MOUD being offered at the program level relative to earlier studies. ^{12,13} However, in programs that report offering MOUD/MAUD, patient choice among medication options was often restricted—particularly for MAUD. Additionally, programs less commonly reported

Table 2. Organizational characteristics of outpatient programs and their association with programs offering MOUD/MAUD in the 2022 N-SUMHSS (*N*=9921 programs).

	Program Offers MOUD model OR (95%CI)	Program Offers MAUD model OR (95%CI)
SUD program (ref = MH/SUD program)	0.84 (0.76-0.93)	0.61 (0.56-0.68)
Ownership (ref = non-profit)		
For-profit	1.19 (1.08-1.31)	0.94 (0.85-1.04)
Ownership other	1.30 (0.96-1.75)	1.26 (0.93-1.71)
State opioid death rate quartile (ref = 4 [lowest])		
Quartile 1 [highest]	2.51 (1.51-4.15)	2.46 (1.46-4.12)
Quartile 2	2.06 (1.26-3.35)	2.60 (1.57-4.32)
Quartile 3	1.70 (1.02-2.82)	2.09 (1.25-3.50)
Medicaid expansion state	1.40 (0.93-2.09)	1.56 (1.05-2.30)
Religious/faith-based organization	0.80 (0.65-0.98)	0.87 (0.70-1.07)

that they offered MAUD than MOUD. Possibly, programs feel a different imperative to offer MOUD compared with MAUD, given the high risk of acute overdose and death among individuals with OUD compared with the typically more chronic accumulation of morbidities and mortality from AUD. Regardless, our estimates provide a worrisome picture of access to medications that support patient recovery in OUD and AUD. They are even more troubling when one considers these program-reported rates are an upper bound of medication availability in these programs.

State licensure/certification was negatively associated with offering MOUD/MAUD. Most programs in our sample (85%) were state licensed/certified. Recent research finds that very few states require (and monitor) outpatient treatment programs to provide MOUD as a condition of licensure/certification, and even fewer require that medication prescribing be directly available at the program, ³² as required in our study. It perhaps seems counter-intuitive that state licensure/certification would be negatively associated with the MOUD/MAUD outcome. Given the limited role states have taken in this regard thus far, one might hypothesize no association. Possibly, our findings can be explained by "deemed status". In states that allow it, programs may opt to use "deemed status" via accreditation from a national organization in lieu of undergoing the state licensure/certification process. 15,33 Thus, in our study state licensed/certified programs are perhaps being compared to non-state licensed/certified programs that instead have deemed status (ie, administratively considered to be licensed) via accreditation from national organizations (and we found national accreditation was associated with offering MOUD/MAUD). Our results point to a missed opportunity for states to move the needle in improving the accessibility of these medications into outpatient specialty behavioral health care. Indeed, the important role that state licensing/certification agencies (and accreditation bodies) could play in moving more SUD treatment programs towards evidence-based care has been noted by the National Academies of Medicine in their 2020 report.³⁴

Several barriers to MOUD and MAUD availability in treatment programs previously have been identified, some of which are more prevalent in SUD programs (and therefore consistent with our observations that SUD programs were generally less likely to offer MOUD/MAUD compared to MH/SUD programs). These barriers include workforce beliefs or culture

regarding the role and/or efficacy of medications in SUD care^{32,35,36} and concerns about diversion risk for MOUD that are controlled substances such as buprenorphine (36). Additionally, many SUD programs do not see themselves as providing medical care, 32,36 and prescribing medications requires considerable staffing and regulation changes.³⁶ Some providers/program leaders perceive a low demand for MOUD/MAUD from their patients, ^{32,36} although some studies suggest otherwise. 37,38 Structural barriers—financial and regulatory—also have been identified in specialty treatment programs; these include inadequate program reimbursement for the cost of purchasing medications, physician time, laboratory tests needed to implement MOUD/MAUD, ³⁶ difficulty recruiting prescribers due to low reimbursement rates, 32,36 and until recently for MOUD, recruiting prescribers who would obtain a DEA X-waiver to prescribe buprenorphine. 32 Federal and state regulatory barriers have also been noted. 36,39

Officials in states that do not require MOUD/MAUD as a condition of state licensure/certification have raised concerns that if they do, programs may close, which would further constrain treatment availability; 32 other stakeholders have viewed the potential closure of programs that are not offering evidence-based treatment as being an appropriate trade-off for improving the standard of care. 32 States that have implemented licensure requirements around MOUD/MAUD report several approaches to support providers in this effort, such as education and technical assistance. 32,39 States could also incentivize programs to provide MOUD/MAUD by aligning payment structures. For example, when implementing its "Medication First" policy for MOUD in publicly funded programs in 2018, Missouri used a multi-pronged approach of educational and technical assistance to providers, and incentivized medication use by simplifying billing requirements, removing prior authorization policies, and increasing administrative payments on medical billing services. 40 As a result, in the first year, rates of MOUD use, time to MOUD initiation, and duration all significantly improved.⁴⁰

Accreditation by a national organization was positively associated with programs offering MOUD/MAUD. This is perhaps surprising given that there is no explicit standard required by the two largest accreditation agencies (TJC, CARF) to offer MOUD or MAUD in outpatient care outside of OTPs. 17,41 However, national accreditation standards could be fostering MOUD/MAUD availability in this setting by other means. For example, TJC requires accredited behavioral health programs to have "a process to provide medical histories, physical examinations, and laboratory tests". 42 Thus, the standards require a program to be more compatible with a treatment approach that is inclusive of a medical model, with resulting greater access to medication treatment. Alternatively, programs that are more accepting of a medical model and role for medications in treating OUD and AUD may be more likely to seek national accreditation.

Regardless, our findings support that, compared with programs that are not, nationally accredited programs are more likely to offer evidence-based medications to support patients in recovery from OUD and AUD. Despite this finding, from a policy perspective, the fact that national accreditation organizations do not include MAUD/MOUD availability in a program as an accreditation standard represents another missed opportunity by these organizations to ensure that the imprimatur of care quality they designate by granting accreditation to a program is inclusive of MOUD and MAUD.

While we found an overall positive association between national accreditation and MOUD/MAUD offer and negative association between state licensure/certification MOUD/MAUD offer, we also found wide variation in these associations across states—even after adjusting for state characteristics that might influence state policy or program culture on providing MOUD/MAUD. Further research is needed to better understand the contributors of this variation and to identify policy levers that may reduce it.

State policy environment can influence whether SUD programs offer SUD medications. As For example, state Medicaid formularies that robustly cover MOUD/MAUD are associated with improved access to these medications. As Italian and access to these medications. As Italian and access to cover all FDA-approved MOUD as a mandatory benefit in their Medicaid programs. It does not, however, require states to cover MAUD.) States may impose utilization management controls, which could limit availability considerably. However, state Medicaid program policies have limited reach in that they do not affect all treatment programs within a state—only those that accept Medicaid; thus, requirements linked to state licensure/certification could be more impactful than those linked to state Medicaid formulary design.

We did find some association between state policy and environment and our MOUD/MAUD outcomes. Medicaid expansion was associated with programs offering MAUD, but in contrast to other reports, ²¹⁻²⁴ we did not find it associated with programs offering MOUD. We also found that a state's opioid death rate was positively associated with programs offering MOUD (consistent with prior literature ¹²) and MAUD.

Conclusion

A wide treatment gap remains in the availability of medications to treat OUD and AUD in specialty behavioral health care. State licensure or certification, which could be a lever to improve availability, was negatively associated with MOUD/MAUD availability in specialty outpatient behavioral health care. National organization accreditation, which is typically considered an imprimatur of quality, was associated with programs offering MOUD/MAUD, but not because accreditation bodies require it. This may be due to national accreditation requirements including certain elements of medical care infrastructure. However, the provision of MOUD/ MAUD represents an important component of care quality and should be reflected in accreditation standards. Lack of state licensure/certification and national organization accreditation requirements for programs to provide MOUD/ MAUD represent missed policy opportunities to improve evidence-based care for individuals with OUD and AUD.

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Supplementary material

Supplementary material is available at *Health Affairs Scholar* online.

Conflicts of interest

Please see ICMJE form(s) for author conflicts of interest. These have been provided as supplementary materials.

Notes

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