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# Use of alternative payment models for substance use disorder prevention in the United States: development of a conceptual framework

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## Abstract

**Background** Alternative payment models (APMs) are methods through which insurers reimburse health care providers and are widely used to improve the quality and value of health care. While there is a growing movement to utilize APMs for substance use disorder (SUD) treatment services, they have rarely included SUD prevention strategies. Challenges to using APMs for SUD prevention include underdeveloped program outcome measures, inadequate SUD prevention funding, and lack of clarity regarding what prevention strategies might fit within the scope of APMs.

**Methods** In November 2023, the Substance Abuse and Mental Health Services Administration (SAMHSA), through a contract with Westat, convened an expert panel to refine a preliminary conceptual framework developed for utilizing APMs for SUD prevention and to identify strategies to encourage their adoption.

**Results** The conceptual framework agreed upon by the panel provides expert consensus on how APMs could finance a variety of prevention programs across diverse populations and settings. Additional efforts are needed to accelerate the support for and adoption of APMs for SUD prevention, and the principles of health equity and community engagement should underpin these efforts. Opportunities to increase the use of APMs for SUD prevention include educating key groups, expanding and promoting the SUD prevention workforce, establishing funding for pilot studies, identifying evidence-based core components of SUD prevention, analyzing the cost effectiveness of APMs for SUD prevention, and aligning funding across federal agencies.

**Conclusion** Given that the use of APMs for SUD prevention is a new practice, additional research, education, and resources are needed. The conceptual framework and strategies generated by the expert panel offer a path for future research. SUD health care stakeholders should consider ways that SUD prevention can be effectively and equitably implemented within APMs.

**Keywords** Substance Use Disorder Prevention, Alternative Payment Models, Expert Panel, Conceptual Framework

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## Introduction

In 2022, an estimated 48.7 million Americans aged 12 and older had a substance use disorder (SUD) associated with the recurrent misuse of alcohol or other drugs [1]. Approximately 178,000 individuals died from causes associated with excessive alcohol use from 2020–2021, and drug overdose deaths increased fivefold in the past 20 years, with nearly 108,000 deaths occurring in 2022 alone [2, 3]. The negative impacts of this ongoing national public health crisis extend to family members, communities, and the health care system [4–6]. Economic costs of substance misuse and related harms are also substantial. Alcohol misuse costs the economy an estimated \$249 billion per year, and in 2020 the annual costs associated with opioid use disorder and overdose were estimated at \$1.5 trillion [7, 8]. A growing evidence base shows that evidence-based SUD prevention efforts when delivered effectively, reduce the risk and prevalence of SUD and substance use-related harms as well as costs on the health care system in a variety of settings [9–12].

Despite its demonstrated benefits, SUD prevention is underfunded, and there is a critical need to develop more effective methods or strategies to deliver and finance prevention services [11, 13–15]. Identifying approaches that will incentivize payment for SUD prevention is important to expand future access. However, it can be challenging to pay for SUD prevention via the traditional method of reimbursing for health care, known as fee-for-service, in which insurers pay providers for each service they provide [16, 17]. Fee-for-service reimbursement of SUD prevention has typically been limited to activities in clinical settings such as screening patients for SUD [18, 19]. Alternative payment models (APMs), in contrast, are methods through which insurers reimburse health care providers based on the quality and cost-effectiveness of care and patient outcomes [17, 20]. APMs have become increasingly popular in recent years as policy makers, insurers, and providers have worked to reform health care in the U.S [17, 21]. With their focus on quality and outcomes, APMs can be leveraged to pay for services that are not typically covered by fee-for-service billing. While they do not inherently add prevention funds, they can make existing funding more flexible, and thus offer a potential means to improve the financing and delivery of SUD prevention.

Although APMs have primarily been utilized in physical health care settings, there is growing use of APMs in SUD treatment and recovery service settings [17, 22]. The three types of APMs commonly used for SUD services are pay-for-performance, bundled payments, and capitation [17]. In pay-for-performance, insurers reward providers based on their performance in relation to specific outcome measures; bundled payment methods give

providers a single payment for a set of services related to a treatment or health condition; and for capitation, insurers pay providers a fixed amount per enrollee over a specific period of time [16, 23]. Research on the impact of APMs on SUD treatment and recovery services is preliminary. While evidence on clinical outcomes is mixed or lacking, early results indicate that some APMs improve process-of-care outcomes and decrease health care spending [22].

APMs are rarely utilized for SUD prevention. SUD prevention uses a range of interventions to reduce substance misuse and increase healthy behaviors [24, 25]. Following the Institute of Medicine (IOM; now known as the National Academy of Medicine) classification of prevention, modes of SUD prevention delivery include: universal approaches to help limit SUD risk in the general population; selective strategies that focus on subpopulations at high risk for substance use; and indicated interventions for individuals with early signs of substance use challenges [26]. APMs are seldom used to fund SUD prevention in part because they focus on measuring the value of care provided for addressing a health condition, while SUD prevention focuses on reducing initial occurrence and harms of a condition [27]. Identifying immediate outcomes associated with SUD prevention can be challenging, as these programs typically measure longer-term outcomes, such as incidence rates in a targeted community [28]. Additionally, SUD prevention services in the U.S. are primarily funded through local, state, or federal grants or philanthropic organizations. Medicaid and Medicare fund SUD prevention through mechanisms such as the Early Periodic Screening, Diagnostic, and Treatment benefit for youth under age 21 and various state plan authorities [27]. However, these mechanisms are not always fully utilized. As such, identifying SUD prevention financial structures that align with APMs may be difficult [29].

Recently, policy makers and public health researchers have encouraged innovative growth in the use of APMs for SUD prevention. The Center for Medicare and Medicaid Innovation (CMS Innovation Center) Integrated Care for Kids (InCK) model, initiated with seven participating sites in 2022, provides one important example of a recent program that incorporates SUD prevention into APMs [30–32]. The InCK model supports whole child health through prevention, early identification, and treatment of behavioral and physical health needs, including SUD, with site-specific APMs and performance measures [30]. In one example, the APM developed for InCK in New Jersey reimburses providers for interpreting the results of beneficiaries' needs assessments surveys, which include questions about substance and alcohol use [33]. The performance of the InCK model will be monitored

with an outcome assessing rates of placement in out-of-home facilities, including hospitalizations for behavioral health, although these outcome data are not yet available [34]. APM demonstrations have also started assessing health-related social needs—such as access to employment, housing, and personal safety—to prevent the development of chronic conditions and reduce care costs. For example, the CMS Innovation Center Enhancing Oncology Model requires participating oncology practices to screen for the health-related social needs of beneficiary cancer patients in order to receive bundled payments [35].

Despite the potential for APMs to improve the quality and cost-effectiveness of SUD prevention services, there are no conceptual frameworks to help spark the implementation of APMs within prevention. The manuscript presents the findings of an expert panel convened to address the need for a conceptual framework for utilizing APMs for SUD prevention and identify specific strategies to assist with this objective. The overarching goal was to establish a foundation for future research and policy development to promote the use of APMs for SUD prevention among academics, policy makers, providers, insurers, and community-health organizations.

### Study data and methods

The Substance Abuse and Mental Health Services Administration (SAMHSA), through a contract with Westat, an employee-owned research corporation, convened a two-day in-person panel meeting at Westat headquarters in Rockville, Maryland in November 2023. The meeting focused on finalizing a conceptual framework for utilizing APMs for SUD prevention and identifying short-term (one to two years in the future) and long-term (three or more years in the future) strategies to increase the use of APMs for SUD prevention. Expert panel members were selected by the first five authors of the manuscript and recruited to participate by authors

ER and SP. Panelists were selected to represent a diversity of relevant perspectives and knowledge.

A total of 20 experts participated, including federal staff, SUD program organization leaders, policy makers, health economists, health services researchers, and behavioral health clinicians. Table 1 provides an overview of the panelists' areas of expertise. Federal panelists included staff from SAMHSA, the CMS Innovation Center, Office of Assistant Secretary for Planning and Evaluation within the U.S. Department of Health and Human Services, and the National Institute on Drug Abuse. Travel costs and an honorarium for attendance at the in-person meeting were provided for all non-federal panelists.

Two weeks before the meeting, panelists received an issue brief drafted by four authors of this manuscript (ER, SP, JC, NN). The brief provided an overview of the goals of the expert panel, background about the use of APMs for SUD prevention, and a review of the literature to help ensure that all panelists had an adequate foundation for all the topics being discussed. The issue brief provided a preliminary conceptual framework for utilizing APMs for SUD prevention, which was adapted from the Association of State and Territorial Health Officials (ASTHO) Substance Misuse and Addictions Prevention Framework [36]. This preliminary framework broadly outlined possible SUD prevention strategies, APMs, and quality measures associated with each of the three IOM modes of prevention (universal, selective, and indicated).

During the meeting authors ER and SSG used a modified nominal group technique to achieve consensus. The nominal group technique is a widely used method in health care research that enables multidisciplinary groups of experts to brainstorm and reach agreement on given issues and policies [37–39]. This method involves asking experts to reflect on a question or problem, discuss the possible solutions as a group, collectively rank their answers, and vote to reach agreement on these rankings,

**Table 1** Overview of expert panelist affiliations and areas of expertise (N=20)

Affiliation	N	Areas of Expertise					
		SUD prevention	Alternative payment models	Health economics	Behavioral health treatment	Behavioral health policy	Health equity
Federal	8	X	X		X	X	X
Academic	6	X	X	X	X	X	X
Non-academic research organizations	4	X	X	X		X	
Professional membership organizations	2	X	X		X	X	

if needed. The nominal group technique emphasizes transparency in terms of the role of the experts and the final products generated from the meeting [38]. Three authors (ER, SSG and JC) moderated and ran the meeting and took detailed notes.

Over two days the panel engaged in discussions regarding the preliminary conceptual framework and to develop lists of short-term and long-term strategies to help achieve the goal of utilizing APMs for SUD prevention. At times the group was divided into four smaller groups that were asked to reach agreement on specific aspects of the conceptual framework and strategies. The groups then came together and a whole-group consensus process was moderated by ER and SSG. The panel voted and agreed upon a final version of the framework and their top short and long-term strategies.

Following the meeting, ER, JC, and SSG drafted the journal manuscript based on their meeting notes, including the agreed-upon conceptual framework and panelist-ranked lists of short and long-term strategies. All panelists were sent the manuscript draft and asked to confirm whether they wished to be listed as a coauthor, included in the acknowledgements, or neither.

## Study results

Panelists agreed that the most important aspect of the framework was that it effectively convey that APMs can apply to SUD prevention programs. The final model retained much of the adapted ASTHO Framework [36] that included two program examples at each IOM level of prevention, APMs, and examples of quality measures but also added foundational considerations, service providers and settings, and reference to the Health Care Payment Learning & Action Network (HCP-LAN) APM framework (Fig. 1) [23].

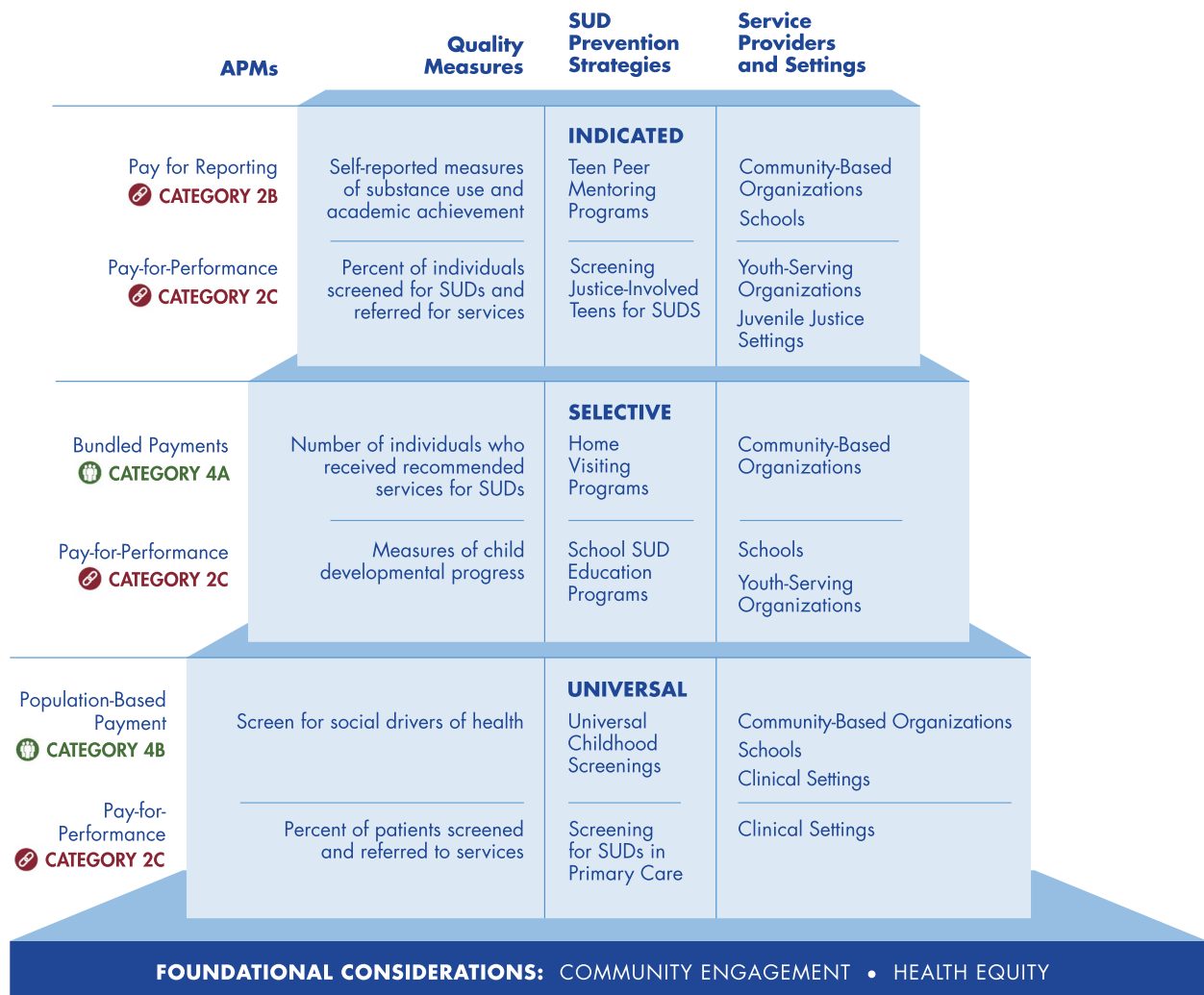
The examples in the framework are not exhaustive and are meant to help decision makers consider the types of APMs and SUD prevention strategies that might be relevant to diverse populations and settings. They also do not cover all types of APMs, as there are not many current examples of SUD prevention that could be leveraged by HCP-LAN Category 3 APMs. Category 3 (APMs with shared savings and shared savings and risk) does not align well with substance use prevention as cost savings from prevention are long-term and attributing savings directly to prevention strategies is challenging. For an example of how to read the model, it shows that selective SUD prevention strategies, which aim to reduce the occurrence of SUD within populations at-risk, may be a good fit for public or private insurers using bundled payments or pay-for-performance methods to reimburse providers. In

another example, home visitation programs designed to prevent SUD among child caregivers at-risk have been shown to have protective effects for children and youth may be implemented by community-based organizations, and the quality performance of these programs could be captured by the number of enrolled caregivers who receive recommended services for SUD.

## Foundational considerations and service providers and settings

Panelists agreed that the framework should highlight the significance of two foundational considerations in developing APMs for SUD prevention: health equity and community engagement. Since the primary goals of APMs are to enhance care quality and lower costs, their focus does not inherently address health disparities [40, 41]. Evidence shows that these payment models have sometimes disadvantaged racial and ethnic minorities [42]. Historically disadvantaged populations face disproportionately high rates of illnesses and frequently engage care late due to issues such as cost, lack of access, and stigma, often resulting in poorer health outcomes and increased medical expenses [40]. For instance, pay-for-performance linked to quality metrics disincentivizes treating patients with higher-than-average medical needs and poor prognoses. Thus, APMs may inadvertently penalize providers serving underserved populations or lead to a reluctance to provide services to vulnerable groups. The panelists asserted that health equity should be included as a foundational consideration to help ensure the adoption of strategies for preventing inequality in the utilization of APMs for SUD prevention.

Panelists also noted that because prevention does not have its own service delivery system, most prevention work is done in conjunction with community partners and often takes place outside of the traditional health care system. Universal, selective, and indicated prevention strategies are typically implemented in youth-serving organizations, schools, communities, or other non-healthcare-related settings and often involve collaboration with social service providers and other groups [11, 24]. As such, community engagement was deemed essential [43]. Collaboration with those who have lived experience with SUD will be vital to help scaffold both foundational considerations into methods for funding SUD prevention through APMs. In addition, given that prevention interventions often take place outside health care settings or with other service providers, the panelists recommended adding a column to the framework to indicate example service providers and settings where the programs may occur.



#### HEALTH CARE PAYMENT LEARNING & ACTION NETWORK (HCP-LAN) APM FRAMEWORK

 **CATEGORY 1**  
FEE FOR SERVICE –  
NO LINK TO  
QUALITY & VALUE

 **CATEGORY 2**  
FEE FOR SERVICE –  
LINK TO QUALITY  
& VALUE

- A** Foundational Payments for Infrastructure & Operations
- B** Pay for Reporting
- C** Pay-for-Performance

 **CATEGORY 3**  
APMS BUILT ON  
FEE-FOR-SERVICE  
ARCHITECTURE

- A** APMs with Shared Savings
- B** APMs with Shared Savings and Downside Risk

 **CATEGORY 4**  
POPULATION-  
BASED  
PAYMENT

- A** Condition-Specific Population-Based Payment
- B** Comprehensive Population-Based Payment
- C** Integrated Finance & Delivery System

**Fig. 1** Conceptual framework for utilizing Alternative Payment Models (APMs) for Substance Use Disorder (SUD) prevention with example strategies



### Health Care Payment Learning & Action Network (HCP-LAN) APM categories

The panel asserted that the conceptual framework should incorporate the HCP-LAN APM framework categories in the APM column [23]. The CMS Innovation Center tasked the HCP-LAN, a public-private partnership of health care thought leaders dedicated to accelerating APM use, with developing this multidimensional framework to categorize the continuum of APM models and help drive alignment in payment approaches across health care [23]. The HCP-LAN framework is widely used in the field to simplify the process of comparing and categorizing APMs, and the panel felt it would serve that purpose for the conceptual framework for SUD prevention.

### Strategies to utilize APMs for SUD prevention

Panelists recognized that effectively using APMs to finance and incentivize SUD prevention would take significant time and financial investment and that not all SUD prevention strategies are likely to fit within an APM. Implementing and sustaining APMs is a complicated process that requires time, buy-in from public and private health care insurers and health care providers, and investment in information technology infrastructure and administrative processes to ultimately improve care and reduce costs [44, 45]. Based on lessons learned from previous APM demonstrations, the panelists asserted that there must be a “glide path,” or phased and structured approach, to APM implementation. Panelists reached consensus on three specific short-term and five long-term strategies to help increase use of APMs to finance SUD prevention and emphasized the importance of adopting an equity mindset when pursuing these strategies.

#### Short-term strategies

1. Educate key groups on APMs for SUD prevention  
An important initial step toward utilizing APMs for SUD prevention is to educate key groups about the potential benefits of this effort, including state-level leaders from Medicaid, insurers, drug and alcohol agencies, community-based organizations, medical associations, and SUD prevention advocacy groups such as prevention coalitions [46]. Conveying to these groups that SUD prevention is a cost-effective means to improve health and save lives, and highlighting its fit with APMs as a financing mechanism, is necessary to gain buy-in for future adoption and implementation of these initiatives [45, 47].
2. Develop requests for pilot proposals

Another important short-term strategy is investing in funding opportunities to support the development and testing of APMs for SUD prevention strategies. Grant funding can provide upfront capital needed to develop sustainable infrastructure, design care models, and build partnerships with the community. Funding opportunities should consider that SUD prevention interventions take place in multiple settings and encourage partnership agreements to enable collaboration between community partners and health systems (i.e., promote a condition-specific bundled payment split between community organizations and clinicians). Pilot programs could also provide opportunities to gather data on effectiveness, costs, and economic benefits to assess APM feasibility within the context of SUD prevention.

3. Expand professional standards for the substance use prevention workforce

There is also a need to expand professional standards for the SUD prevention workforce to improve the capacity of APMs for SUD prevention. Recently, SAMHSA published a set of core competencies and professional standards for SUD prevention and mental health promotion professionals, which provides a pathway to certification and funding to support training [48]. Development of an official U.S. Department of Labor occupation code for “prevention specialist” will also help to further advance the SUD prevention workforce.

#### Long-term strategies

1. Identify core components of SUD prevention to use with APMs  
Identifying core components, or core functions, of SUD prevention initiatives and establishing a set of evidence-based practices to be utilized within APMs is an important long-term strategy that could complement existing prevention program approaches. This could be accomplished by undertaking a comprehensive review of the available literature, assessing evidence from pilot studies, and convening an expert panel to discuss the evidence base and make recommendations for best practices. Best practices might differ across target populations, and thus the evidence base might entail stratification by audience or by risk of developing SUD in a particular population.
2. Conduct analyses to measure potential costbenefits  
Using APMs for SUD prevention has the potential to reduce costs associated with health care utilization (e.g., emergency room visits, inpatient stays)

and impact other social and economic outcomes (criminal legal system involvement, employment). The value of these programs may be assessed in a variety of ways, such as by testing the outcomes of a specific prevention strategy in comparison to a similar community cohort in which the prevention strategy has not been implemented. While it will take time to observe the short-term outcomes of early pilot efforts, evidence that APMs are a cost-effective means to support SUD prevention will increase payers' and providers' willingness to adopt them.

3. Grow the prevention workforce

There is currently a behavioral health workforce shortage, and this shortage is expected to worsen [49]. Not only is there a need to increase the certified prevention workforce, the SUD prevention workforce must also be expanded in order to support the implementation of APMs, which can add complexity and increase workloads. Growing this workforce could involve raising awareness about the importance of the field and its career opportunities through targeted outreach in educational institutions, conferences, and job fairs. Additionally, promoting the workforce could require actions such as competitive salaries, loan repayment programs, and career advancement opportunities. Training and supporting primary care providers to implement prevention strategies is another important means to improve access to SUD prevention.

4. Fund programs focused on APMs and SUD prevention

Although pilot programs are a short-term strategy, supporting these efforts in the long term will require significant and sustained investment from federal agencies and other funding sources. Funding opportunities that integrate prevention into primary care, like InCK and other national demonstration programs, will be necessary. It will be important that payers explore how to incentivize providers in diverse settings to transition from traditional payment methodologies for SUD prevention to APMs.

5. Promote federal alignment in funding of SUD prevention

Coordinating funding for SUD prevention across federal agencies will help avoid potential duplication of efforts and maximize available resources, enabling implementation of more comprehensive SUD prevention strategies, including the use of APMs for prevention. Given the various strategies and settings where substance use prevention interventions are implemented, there is also a need to increase prevention funding for approaches that fall outside the scope of APMs or other health care financing strategies.

## Discussion

In the last several decades, growth in the prevalence and severity of SUDs and related harms such as nonfatal and fatal overdoses have taken an enormous toll on lives and the health care system. SUD prevention, which a growing evidence base shows reduces the incidence and prevalence of SUD and its economic costs, is an essential component in the continuum of services that protect the nation's health [9–12]. With their focus on quality of care and patient outcomes, there is significant potential for APMs to increase financing available to support and sustain SUD prevention strategies. The expert panel recommendations presented in this paper may serve as a starting point to promote the use of APMs in the SUD prevention space.

The conceptual framework refined through the two-day expert panel meeting highlights opportunities to use APMs for SUD prevention strategies at all levels of prevention and in diverse populations and settings. The panel was clear that health equity and the engagement of community partners are integral to these efforts. The panelists also highlighted short-term and long-term strategies that policy makers, providers, and health care payers can take to help set up a "glide path" for broader and sustained use of APMs for SUD prevention. These strategies carry promise for helping prevent SUD and improving public health.

Understanding persistent challenges to using APMs for SUD prevention will aid in the development of strategies to increasing their use. For example, because APMs do not fit all possible prevention strategies, it will be important to identify which types of APMs are most feasible to utilize for prevention. Building sustainable partnerships with community-based organizations, which are often underfunded, to help incentivize them to provide SUD prevention services will be essential. It will also be necessary to develop measures to assess the effectiveness of SUD prevention programs and the value of care, which are important to payers and decision makers. Additionally, successful implementation of APMs within SUD prevention will hinge on the availability of sustainable and reliable funding. Identifying specific, real-world strategies to encourage both public and private insurers to use APMs to reimburse for SUD prevention through in-depth explorations of current and potential future funding mechanisms is an essential next task for work building on the conceptual framework.

There are limitations to this work. The conceptual framework and strategies developed by the expert panel are limited by the experience, expertise, and group dynamics of the panelists and may be strengthened by further external review and testing of the concepts in real-world settings. In addition, the expert panel began

with a draft conceptual model, which may have limited discussion of other viable options. Another limitation of this study is the absence of private insurers on the expert panel, whose perspectives on implementing and financing various APMs could provide valuable insights into structuring sustainable payment approaches for SUD prevention. The impact of these limitations were partially mitigated by the selection of a diverse expert panel and the use of facilitators with expertise in consensus methods. As highlighted by the panel, further foundational research is necessary to understand the potential benefits of APMs for the costs and outcomes of SUD prevention services as well as identify APM financing strategies most compatible with prevention efforts. Additionally, further research is needed on how community engagement and health equity can be meaningfully embedded in APMs for SUD prevention.

Despite these limitations, the findings of the expert panel highlight the significant potential of APMs to incentivize and improve financing of SUD prevention. As the social and economic costs of SUD continue to grow and policy makers, insurers, and providers push for larger-scale transitions to innovative payment structures, finding ways to integrate SUD prevention into these types of payments is of increasing importance. However, significant additional research, education, and investments are needed to achieve this task. Building on the work of the expert panel and the specific short and long-term strategies they identified, stakeholders motivated to improve outcomes and reduce costs associated with SUD should consider pathways whereby prevention can effectively and equitably be implemented within APMs.

#### Abbreviations

APMs	Alternative payment models
SUD	Substance Use Disorder
IOM	Institute of Medicine
CMS Innovation Center	Center for Medicare and Medicaid Innovation
InCK	Integrated Care for Kids
ASTHO	Association of State and Territorial Health Officials
HCP-LAN	Health Care Payment Learning & Action Network

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#### Authors' contributions

All authors (ER, SP, JC, SSG, NN, CMJ, MRK, ADC, DMC, LCC, and MTF) contributed to the original conceptualization of the research and reviewed the manuscript. ER, SP, JC, NN, and SSG developed the methodology. CMJ, MRK, ADC, DMC, LCC, and MTF participated in the expert panel that formed the basis of the research. ER, JC, and SSG wrote the original draft of the manuscript text. ER and JC conducted the main analysis. All authors reviewed and approved the final version of the manuscript.

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#### Data availability

No datasets were generated or analysed during the current study.

#### Declarations

##### Ethics approval and consent to participate

This study was approved by the Westat Institutional Review Board (IRB).

##### Consent for publication

Consent for publication has been obtained.

##### Competing interests

The authors declare no competing interests.

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