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## Access to Treatment for Adolescents With Substance Use and Co-Occurring Disorders: Challenges and Opportunities

Stacy Sterling, M.P.H., M.S.W., Constance Weisner, Dr.P.H., M.S.W., Agatha Hinman, B.A., and Sujaya Parthasarathy, Ph.D.

Ms. Sterling, Drs. Weisner and Parthasarathy, and Ms. Hinman are with Kaiser Permanente. Dr. Weisner is also with the University of California

### Abstract

**Objective**—To review the research on economic and systemic barriers faced by adolescents needing treatment for alcohol and drug problems, particularly those with co-occurring conditions.

**Method**—We reviewed the literature on adolescent access to alcohol and drug services, including early intervention, and integrated and specialty mental health treatment for those with co-occurring disorders, examining the role of health care systems, public policy (health reform), treatment financing and reimbursement systems (public and private), implementation of evidence-based practices, confidentiality practices, and treatment costs and cost/benefits.

**Results**—Barriers to treatment, particularly integrated treatment, are largely rooted in our organizationally fragmented health care system, which encompasses public and private, carved-out and integrated systems, and different funding mechanisms (Medicaid versus block grants versus private insurance that include “high deductible” plans and other cost controls.) In both systems, carved-out programs de-link services from other mental health and general health care. Barriers are also rooted in disciplinary differences and weak clinical linkages between psychiatry, primary care and substance use, and in confidentiality policies that inhibit communication and coordination, while protecting patient privacy.

**Conclusion**—In this era of health care reform, we have the opportunity to increase access for adolescents and develop new models of integrated services for those with co-occurring conditions. We discuss opportunities for improving treatment access and implementation of evidence-based practices, examine implications of health reform and parity legislation for psychiatric and substance use treatment, and comment on key unanswered questions and future research opportunities.

### Keywords

adolescent; substance; psychiatric; co-occurring; barriers

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Substance use (SU) is a major cause of morbidity among youth.<sup>1</sup> Yet youth and their families frequently encounter economic and systemic barriers to obtaining treatment. We examine these barriers from several perspectives, considering them in light of major health

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Correspondence to Dr. Stacy Sterling, Division of Research, Kaiser Permanente Northern California, 2000 Broadway, 3rd Floor, Oakland, CA 94612-2403. sas@dor.kaiser.org.

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care policy changes that may create opportunities for improved treatment access. We discuss how health care systems affect access to services for adolescents with SU problems, including early intervention, and integrated and specialty psychiatric treatment for those with co-occurring disorders.

We discuss the role of confidentiality and privacy laws, policies on the coordination and quality of care, and whether reimbursement systems provide a disincentive for providers to treat adolescents early, when their problems are less severe. Bearing in mind current systemic limitations, we discuss opportunities for improving treatment access and implementation of evidence-based practices, and we examine implications of parity legislation for psychiatric and SU treatment. Finally, we comment on key unanswered questions and suggest future research.

## METHOD

A literature review, using the PubMed database, was conducted of relevant articles pertaining to adolescent access to alcohol and drug services. Our review included articles on early intervention, integrated and specialty mental health treatment for those with co-occurring disorders, role of health care systems, public policy (health care reform), treatment financing and reimbursement systems (public and private), implementation of evidence-based practices, confidentiality practices, and treatment costs and cost/benefits.

## RESULTS

### Prevalence and Unmet Need for Treatment

National surveys estimate the prevalence of severe SU disorders among adolescents at 2% to 5%.<sup>2</sup> Recent surveys have found increased use, or a leveling off of the declines of recent years. According to the 2009 Monitoring the Future (MTF) survey, marijuana use rose and concern about its risks declined. Almost half of US 12th graders report lifetime illicit drug use and 42% past year marijuana use.<sup>3</sup> The increases may be driven by medical marijuana legislation and changing public attitudes. Three-quarters of 12th graders report lifetime use of alcohol, nearly half report past month use, and 25% report binge drinking.<sup>4</sup> Disturbingly, 8% of 8th graders also report binge drinking, and 20% report lifetime illicit drug use.<sup>3</sup> The illicit use of narcotic analgesics remains at peak levels, and Oxycontin misuse has risen among 10<sup>th</sup> graders.<sup>3</sup> Recent declines in teen smoking may have leveled off, which is alarming, given the long-term effects of smoking on public health. Among high schoolers, current smoking is estimated at 20%,<sup>5</sup> and lifetime smoking at 44%. Smokeless tobacco use among 10<sup>th</sup> graders has also increased.<sup>4</sup> Another large national survey of adolescent SU in 2009 also found significant increases in marijuana, alcohol, and ecstasy use, and more positive attitudes toward SU.<sup>6</sup> Substance misuse is often accompanied by other conditions and risky behaviors, such as delinquency, human immunodeficiency virus (HIV) exposure,<sup>7</sup> poor academic performance, and suicide.<sup>8</sup>

Despite these high prevalences, few adolescents who could benefit from SU treatment receive it,<sup>9</sup> and those who do often get it after their problems are severe and co-occurring with medical and psychiatric conditions. They are then more difficult to treat, and more expensive to health care systems.<sup>10–12</sup> Only 6% to 8% of those who could benefit from alcohol treatment, and 9% to 11% of those who could benefit from drug treatment,<sup>2</sup> or about 2.4 million adolescents, received treatment between 2003 and 2006.<sup>13</sup> Of these, the majority also had a co-occurring psychiatric disorder;<sup>14–16</sup> however underidentification of co-occurring substance and psychiatric conditions in general health care and other systems makes it difficult to estimate the full extent of unmet need within the general population. Many more youth experience co-occurring problems which, while not meeting diagnostic

thresholds, create significant functional problems for them and their families. The American Society for Addiction Medicine (ASAM) has developed patient placement criteria that match adolescents to appropriate treatment levels based on problem acuity and other factors, and suggests minimum program components necessary for levels of care.<sup>17</sup> The criteria recognize the unique needs of adolescents, particularly the high prevalence of co-occurring mental health problems, and the importance of relapse prevention and aftercare. The developers acknowledge, however, that, “even the limited continuum of treatment settings described in the criteria is not yet available in most communities.”<sup>18</sup>

The emerging evidence on the vulnerability of the developing brain to the harmful (and potentially permanent) effects of SU,<sup>19</sup> suggests that better access to services—identification, assessment, prevention, treatment, and aftercare—could help prevent adverse long-term health and psychosocial outcomes. In fact, many national medical associations have called for changes in financing systems to facilitate access to SU and psychiatric treatment for adolescents.<sup>20,21</sup> Unfortunately, the reliance on third-party payers and the lack of prevention and early intervention coverage means that adolescents' problems must be sufficiently severe that they come to the attention of other systems, particularly juvenile justice or social services.

## CURRENT BARRIERS TO TREATMENT ACCESS

### Payer Financing Systems and Incentives

Most adolescents receive SU treatment separately from general medical and psychiatric services, typically in community-based treatment programs. Differences across the three systems have perpetuated significant barriers to access for adolescents with co-occurring problems, barriers reinforced by distinct funding mechanisms.<sup>22</sup>

**Private Sector**—In recent years, private financing of health care has changed dramatically. To curb excessive use and spending in fee-for-service systems, insurers have lowered service demand by increasing patient cost-sharing via deductibles and co-payments. In psychiatric and SU treatment programs, this has often led to restricting critical services. As the private sector evolved from fee-for-service to mostly managed care, health plans applied utilization review, case management, and reduction of inpatient stays in favor of outpatient care. These strategies reaped cost savings and have likely curtailed inappropriate care,<sup>23</sup> but may have also reduced access and quality of care.

In integrated health care delivery systems, financial incentives are aligned to facilitate access and coordinated care among SU and psychiatric and medical departments. These health plans typically have prepaid, capitated, per-member reimbursement arrangements with providers. They emphasize preventive services to reduce use of costly services for more severe health problems. In theory, the providers have an incentive to identify and treat SU and psychiatric problems earlier, and because the plans provide services in-house, access to specialty SU and psychiatric care is increased.<sup>24,25</sup>

Many less integrated health plans have found it more cost-effective and efficient to “carve out” or contract with outside agencies to provide specialized services. These contracts may occur directly between payers (typically employer groups) and behavioral health care provider organizations (BHOs), or, more commonly, via subcontract between managed care health plans and BHOs. Carve-outs have transferred the cost-containment burden from patients to providers, effectively moving from demand-side to supply-side cost-control.<sup>26</sup> BHOs specialize in psychiatric and SU treatment, capitalizing on focused expertise and knowledge of local providers, economies of scale, and rigorous utilization review, particularly of inpatient services. Thus BHOs often can provide a broader array of services

than the health plan, for significantly lower costs,<sup>27</sup> potentially increasing access to and quality of care.<sup>28</sup>

Carve-outs effectively de-link behavioral health services from general medical care. With cost-containment concerns removed, medical providers, relieved to delegate the management of complex problems, are more likely to identify problems and to refer patients to a BHO, increasing access to more comprehensive and cross-system SU, and psychiatric services. However, the providers may also become less sensitive to current SU and psychiatric issues and less adept at identifying problems. They also have less financial incentive to treat patients in primary care rather than referring them.<sup>28</sup> For patients with co-occurring problems, the type of coordinated care now considered optimal by the SU treatment field may be difficult to facilitate. Research on whether carve-outs have inhibited the coordination of care has been limited and inconclusive. Findings on use have been mixed and difficult to interpret because of differences in measures, but they generally suggest that the intensity of service use has decreased under carve-outs, whereas access to treatment has remained stable or has increased.<sup>29</sup>

The targeting of funding to acute rather than long-term care<sup>30</sup> also impedes access to the full range of services recommended by organizations such as ASAM.<sup>18</sup> Patients are best served by ongoing services,<sup>31</sup> and the field is taking tentative steps toward embracing disease management models that explicitly address the chronic nature of SU problems. Yet because most public and private coverage limits the numbers of visits, many treatment programs are still designed to provide acute care. Changes in funding structures through parity and other health care reform measures could hasten the development and adoption of continuing care models.

**Public Sector**—Most SU treatment is publicly funded, either by states and by municipalities directly, or through the federal Medicaid and Child Health Insurance Program (CHIP) programs, and Substance Abuse and Mental Health Services Administration (SAMHSA) block grants allocated to states to supplement funding for state and local programs.<sup>24</sup> Public funding for SU treatment has increased significantly in the past decade, far faster than public spending on health care in general. It currently accounts for more than three-fourths of all treatment spending, and is expected to increase to 83% by 2014 (from 50% in 1986).<sup>32</sup>

The increase in the public share of overall spending on SU treatment is significant in part because it reflects the concomitant decrease in private funding. SAMSHA estimates that, between 1986 and 2014, the share of treatment paid for out of pocket will drop from 14% to 6%, and by private insurance from 30% to 7%.<sup>32</sup> Most adolescents are covered under private, employer-based health insurance,<sup>33</sup> but SU treatment is often excluded, even in plans that cover other psychiatric care. When covered, benefits are limited (e.g., by number of visits per year) and co-payments and/or deductibles onerous. As a result, many adolescents with insurance ultimately seek treatment in the public system.

Publicly funded SU services for adolescents have their own barriers to access, because of restrictions on public treatment funds. Block grant funding typically covers only community-based outpatient and residential treatment. Medicaid typically reimburses psychiatric services on a fee-for-service model. It often authorizes payment only to psychiatrists, rather than to the psychologists, social workers and family therapists who are the usual SU treatment clinicians, although this has been partly remedied under the Medicaid Services Rehabilitation Option. States vary in SU and psychiatric treatment coverage for adolescents under Medicaid and CHIP. States with stand-alone CHIP programs (not Medicaid expansion programs) are not subject to the same service provision

requirements as Medicaid, and thus may opt not to cover SU and psychiatric treatment. States with Medicaid and CHIP programs that do cover SU and psychiatric services often place restrictions on services, including yearly or lifetime limits on visits, access limited to particular groups (e.g., pregnant women), or requirement of a primary psychiatric diagnosis. These restrictions may especially limit access for adolescents with lower-severity problems who would benefit from early intervention, or for those with co-occurring problems. In recognition of high comorbidity rates, integrated treatment approaches that address patients' SU, psychiatric and medical problems, either in clinically integrated programs or through closely coordinated, parallel services, are increasingly recommended to improve outcomes.<sup>16,34-35</sup> Although states are showing more flexibility in billing and providing more integrated services,<sup>36</sup> widespread implementation has been slow. Many public systems have also recently moved to managed care arrangements, and studies of Medicaid managed care found decreases in inpatient use and increases in outpatient use among both children<sup>37</sup> and adults.<sup>38</sup> A study of publicly funded adolescent SU treatment comparing managed care and non-managed care systems in Oregon and Washington found few differences in outcomes or number of visits. However, they did find that adolescents with lower SU severity were less likely to receive care in Oregon under managed care than in Washington under a fee-for-service system, and that adolescents in Washington had higher satisfaction with services.<sup>39</sup> This poses a challenge for how to ensure that lower-severity adolescents receive treatment before their problems progress to greater severity.

Strictly categorical SU and psychiatric funding does not promote optimal treatment access or integration for co-occurring problems. Recent efforts to combine funding streams for services not otherwise covered under categorical programs include “blending” funding within programs (which funds are paying for which services cannot be determined), and the “braiding” of funds, (funds are separately tracked, but allow for packaging of comprehensive services). These efforts continue but have been met with resistance from funders concerned about accountability under payment bundling mechanisms.

### **Clinical and Organizational Limitations of Specialty and Primary Care Settings**

**Services Within Psychiatry**—Failure to identify and refer SU problems in psychiatric treatment settings remains a barrier to SU treatment. Adolescents with SU problems often are treated first in psychiatric programs (particularly girls<sup>10</sup>) because it seems less stigmatizing and more palatable to the referring physicians or to patients and families. Disciplinary perspectives on primary versus secondary diagnoses often differ between the mental health and addiction treatment fields. Research suggests that psychiatric programs are less likely than SU programs to provide services for co-occurring disorders.<sup>40</sup> Increasing SU screening and referral practices in psychiatry, with better linkage and communication with SU treatment providers, is essential to improving access and coordination of care, but the research in this area is insufficient.

**Services Within Primary Care**—Medical providers are becoming more involved in identifying and treating SU problems, and the evidence supports their effectiveness on a range of outcomes.<sup>41,42</sup> However, relatively few primary care providers screen adolescent patients according to recommended guidelines,<sup>43-44</sup> and many SU problems go unidentified.<sup>45</sup> In a recent survey, health plan pediatricians underestimated SU prevalence among their patients, and also reported less concern about alcohol and marijuana use versus other drugs, although these substances are typically abused by more adolescents.<sup>10</sup> Those reporting “very concerned that it is risky to use”: for alcohol (28%) and marijuana (25%), compared to cocaine (85%), methamphetamine (86%), prescription opiates (75%), heroin (90%), party drugs (72%), inhalants (74%), and tranquilizers (75%) (These data were drawn from National Institutes of Health (NIH)-funded study R01 AA16204).

The pediatricians also reported high rates of sensitivity about addressing SU with patients, particularly compared with other behavioral problems; alcohol was more difficult to discuss than depression (19% versus 15%) or sexual practices (15% versus 1%). The pediatricians were also less prepared to diagnose alcohol problems than depression (56% versus 70%). Few (14%) had received any instruction regarding SU problems in the prior 5 years, and only 11% had received any in medical school. Less than half (48%) were satisfied they were staying current on SU problems and treatment. (These data were drawn from NIH-funded study R01 AA16204.)

Medical providers often complain that a major barrier to screening, identification, and referral is that they do not know what to do with or where to refer patients when problems are identified. This is reflected in the typically low rates of referral by medical providers of adolescents entering SU treatment. In the survey, providers said they referred to the psychiatry department (74%), followed by chemical dependency treatment (61%), health education (17%), self-help groups (15%), and inpatient services (2%). (These data were drawn from NIH-funded study R01 AA16204.) In many non-integrated primary care settings, providers give families names of possible SU providers or programs and leave them to navigate networks of services on their own.

Integrating SU treatment into primary care settings will require adjustments and education of the medical community, because adolescent providers in both mental health and primary care settings rarely receive adequate training to manage SU problems, and even less to manage cooccurring problems. At US academic health centers, 30% of family practice residents reported feeling unprepared to care for substance problems.<sup>46</sup> We know from studies of adults and adolescents with SU problems that providers who have knowledge, competence, and confidence have improved screening and intervention rates; for example, confidence in taking alcohol use history and familiarity with published NIH guidelines predicted higher rates<sup>47</sup> and more hours of postgraduate education for primary care physicians also predicted more confidence.<sup>48</sup> Training to address co-occurring disorders is even sparser; most postgraduate psychiatric programs still do not train in management of complicated patients with comorbid disorders.<sup>49</sup> Hawkins recommends cross-training between the SU and mental health fields, and training gatekeepers such as primary care physicians, school nurses, and others. This will be best accomplished by developing certification programs for co-occurring disorders and corresponding reimbursement.<sup>22</sup> Currently, several federal programs are underway to increase physician training in the identification, treatment, and referral of patients with SU disorders.<sup>50</sup>

The evidence supports the efficacy and effectiveness of medications for SU problems, which may also encourage physicians to treat individuals with SU problems, although pharmacotherapies are implemented for SU disorders more slowly than for other medical conditions.<sup>51</sup> The safety and efficacy of medication use in adolescents with SU and co-occurring disorders has been insufficiently studied. Medication use should be considered only cautiously and in conjunction with or after exhausting the many evidence-based psychosocial interventions available for adolescents. Nevertheless, new studies do suggest promising results from pharmacotherapy for adolescents, including buprenorphine for opiate-dependent youth and fluoxetine for adolescents with co-occurring SU and major depression and conduct disorder.<sup>52,53</sup> As evidence emerges, and as financing incentives are implemented, primary care providers may feel more confident about the “toolkit” for SU problems.

### **Confidentiality**

Patient health information is carefully protected in general, and information about the diagnosis and treatment of SU problems in particular is well guarded by federal and state

regulations and organizational policies, such as 42 CFR, part 2.<sup>54</sup> These privacy regulations, originally designed to protect drug treatment patients from prosecution, can inhibit the coordination of services. Providers may hesitate to document adolescent SU problems for fear of jeopardizing future insurance, employment, or military service eligibility.<sup>55</sup> These concerns may be mitigated by health reform legislation that does not exclude coverage for pre-existing conditions. Primary care and mental health providers may also be less likely to refer patients to specialty SU treatment than to other specialty care, such as diabetes management or rheumatology. The Institute of Medicine recommends that sharing of information between providers treating the same patient become more routine.<sup>28</sup> The rapid development of health information technology and the adoption of electronic medical records further complicate these issues; integrated health information technology systems could potentially contribute significantly to the integration of care for SU and co-occurring problems and could improve quality of care. The field must weigh these potential benefits against privacy concerns, and the challenges will differ between integrated and carved-out health plans.

Regulations and policies specific to adolescent confidentiality have also had unintended barriers to treatment access. The fear of disclosure of risky or illegal behavior to parents prevents some adolescents from obtaining medical care and discussing health behaviors. For physicians it also increases the complexity of addressing problems.<sup>56</sup> Policies and laws guaranteeing full protection of service confidentiality may encourage patients' disclosure of problems, but may also inhibit screening practices by limiting physicians' or other clinicians' ability to discuss SU problems with parents or other clinicians.

## COST ANALYSIS

Economic evaluations should play a critical role in designing and enhancing SU programs. The introduction of the Drug Abuse Treatment Cost Analysis Program (DATCAP) was a milestone in the development of cost-benefit and cost-effectiveness literature in the addiction field,<sup>57</sup> although limited in its application to adolescent treatment.<sup>58-60</sup> Cost-effectiveness analysis of adolescent programs has several methodological and conceptual challenges, and, when used inappropriately, may have the unintended consequence of limiting services to this vulnerable population. Examining a single primary patient outcome can be misleading and can result in poor policy decisions.<sup>61</sup> Adolescence is characterized by significant changes in physical, developmental, environmental, and economic characteristics, which are often related to behavioral problems, including SU. The costs and benefits associated with successful treatment frequently extend beyond the individual patient. In a study by McCollister and French,<sup>62</sup> the largest contributor to economic benefit was averted criminal activity, followed by reduction in medical care use. A study by Balsa et al.<sup>63</sup> showed that treatment initiation was positively associated with abstinence, schooling outcomes, and employment outcomes but had no effect on criminal activity. Had these authors in the second study focused on criminal activity as the primary outcome, the policy conclusion might have been that intervention was not cost-effective.

From the patient's perspective, total costs also includes opportunity costs (e.g., time lost from school or work), which may be a barrier to accessing treatment. Families' costs for adolescents with SU are likely to be high as typically they are involved in facilitating and sometimes participating in the adolescent's treatment. A study by Roebuck et al.<sup>64</sup> showed that costs per patient for adolescent SU treatment were higher than for adults in treatment.

The timing of adolescent economic research is also critical. Analysis conducted too soon after an intervention may not reveal economic benefits, and analysis conducted too long after might confound benefits and costs associated with the initial treatment episode with

those that occur naturally in the transition to adulthood.<sup>65</sup> For example, even if 12-month costs do not decrease as they do for adults,<sup>12</sup> because of multiple comorbidities or because adolescents are experiencing developmental milestones such as employment, marriage, or parenthood, their SU outcomes may improve, with fewer acute events leading to costly emergency room and hospital services. Thus it is likely that short-term increases in post-treatment medical, mental health, and SU treatment costs among adolescents are temporary and will be offset by long-term benefits such as reduced morbidity and mortality and negative public health consequences after SU treatment.

## OPPORTUNITIES FOR INCREASING ACCESS

### Parity Legislation

In 2008, Congress passed broad parity legislation that included addiction treatment. Combined with several state parity laws, the new law promises to address the disparities in insurance coverage across medical, SU, and psychiatric problems. The laws typically require that insurance plans providing psychiatric and SU treatment coverage cannot impose restrictions on benefits different from those imposed on medical and surgical treatment. However, they do not mandate coverage of SU or psychiatric services, and they typically apply only to larger employers (e.g., the 2008 federal legislation applies to employers with 50+ employees) and Medicaid managed care plans, but not to other publicly funded health insurance, such as Medicaid fee-for-service and Medicare. The federal law defines neither the types of covered disorders nor the scope of benefits, leaving these determinations to the health plans themselves or deferring to state regulations. Thus states vary widely; some require comprehensive coverage and others limit covered diagnoses to severe mental illness or certain “biologically based” psychiatric disorders. Often excluded are the types of SU problems experienced by adolescents, such as dangerous, but non-dependent, binge drinking.<sup>66</sup> Federal parity legislation does not prohibit health plans from imposing “medical necessity” restrictions, which may be difficult to demonstrate in SU disorders. For example, an adolescent with serious SU-related legal or school-related consequences, who would clearly benefit from treatment, might not be considered medically “at risk.”<sup>67</sup> Despite these limitations, however, the new parity laws promise to address historical inequities in insurance coverage and to increase access to SU and psychiatric treatment for adolescents. In addition, despite early fears about precipitous cost increases, research suggests that parity laws have little financial impact on insurers.<sup>68-69</sup>

### Performance Measures

Several promising strategies for decreasing barriers, reducing costs, and improving quality are performance measures, Medicare and Medicaid billing codes for screening and brief intervention in primary care, and pay-for-performance (P4P) contracting.

SU treatment has historically lagged in performance measurement. However, through advocacy in the field and efforts by groups such as the National Quality Forum and the Washington Circle Group to develop and test measures, the National Committee for Quality Assurance (NCQA) adopted measures of Identification of Alcohol and Drug Disorders, and Initiation and Engagement of Alcohol and Drug treatment. They were incorporated to its 2004 Healthcare Effectiveness Data and Information Set (HEDIS)<sup>70</sup> and adopted for patients over age 11. They are vital incentives for health plans to initiate or improve SU screening and interventions in primary care and psychiatry, to facilitate referrals to SU treatment, and to develop better linkages between medical providers and psychiatric and SU programs.



## Payment Mechanisms

**Pay-for-Performance**—Financial incentives to providers for better performance, or penalties for poor performance, are becoming more common in health care, often in the management of chronic diseases such as diabetes and asthma, or for preventive care, such as cancer screening and vaccination.<sup>71</sup> They are only beginning in SU and psychiatric treatment, again partly because of the difficulty of defining appropriate quality indices.<sup>72</sup> In addition, the immaturity of information technology systems in both fields has made it more difficult to collect and report the data needed to implement P4P mechanisms. Nevertheless, several programs have been initiated as part of state contractual arrangements, and preliminary research findings are promising. To date, P4P mechanisms have focused on process outcomes, such as adherence to best practices and treatment retention, rather than direct SU outcomes. Delaware and Maine have included indicators of capacity utilization designed to measure efforts to attract and engage patients in SU treatment. Early findings suggest that programs developed with input from local providers and flexibly applied can result in improvements in such areas as full program capacity and utilization.<sup>73,74</sup> To our knowledge, however, no studies have examined the use of P4P mechanisms to increase adolescent treatment specifically.

There are inherent challenges to the use of these mechanisms, and one is of particular concern in the behavioral health field, with its history of adverse selection.<sup>75</sup> As programs' capacities for measuring direct patient outcomes mature, there will inevitably be pressure to apply P4P contracting. Unless careful risk adjustment is used, however, providers and programs may feel compelled to serve patients with less severe problems who are likely to realize better outcomes. Although less true when contracting is based on capacity utilization measures, the patient population's acuity needs to be monitored to avoid decreasing access by patients with more severe problems (which includes individuals with co-occurring problems). Regulatory agencies will have to conduct careful oversight of P4P activities and develop mechanisms for ensuring adequate accountability.

**Payment Mechanisms for Screening, Brief Intervention, and Referral Treatment (SBIRT)**—The implementation of new American Medical Association Common Procedural Terminology, and Medicaid and Medicare Healthcare Common Procedure Coding System, codes for the reimbursement of screening and brief intervention by medical providers also promises to increase treatment access. Importantly, the new codes cover lower-severity problems, as well as SU dependence. It is hoped that a reimbursement mechanism will encourage providers to perform these services. Medicaid codes must be adopted by individual states, however, and to date, only a minority of states have done so. Private health plans also must decide individually to adopt them.

## DISCUSSION

For adolescents with SU and co-occurring conditions, this is a time of both deep concern and significant opportunities. Because of the complicated systemic and financial barriers discussed, too often patients and their families are forced to navigate separate systems of care, often both public and private, and to coordinate their own care because appropriate linkages between providers and organizations are lacking and insurance and financial support is limited or nonexistent. This can be especially challenging for patients with co-occurring disorders; not surprisingly, many are unable to access or follow through with recommended, evidence-based, treatment regimens. Many patients “fall through the cracks,” and treatment initiation, engagement, and retention rates in this population are notoriously low.<sup>76</sup>

Many of the obstacles to treatment access have deep roots in the organizational and financial fragmentation of our health care system, but recent policy changes hold great promise for reducing them. The significance of system differences (public versus private, carved-out versus integrated, block grant versus Medicaid) has often been underappreciated in clinical and services research to date, and we know little about the differences in approach to system change that they might entail.

The cost issues related to adolescent treatment are complex. For instance, what are the implications of not finding the same cost reductions after treatment found in adults?<sup>12</sup> Do new payment mechanisms, such as P4P, affect adolescent treatment in the same way as adult treatment? On these questions, the adult literature is often not applicable, and future research must examine long-term health care costs of adolescent SU and dual treatment patients.

The privacy issues discussed continue to be major hurdles to providing integrated treatment. Reforms such as eliminating pre-existing conditions as insurance disqualifiers may help to improve access, and they will be important to study.

The field must also address access and quality of treatment for young adults; their needs and treatment issues often differ from those of adolescents and older adults. Sometimes young adults “age out” of their parents' insurance coverage at a time when they are beginning to experience SU, psychiatric, and medical problems, or when their adolescent problems have become chronic. Many have no access to college or employment health care coverage.<sup>77</sup> Others purchase limited coverage such as high-deductible plans, betting that they will remain healthy. Yet this group is most at risk for behavioral health problems.

Epidemiologic evidence demonstrates the common chronology of SU, psychiatric, and medical problem development, and that addressing problems earlier improves outcomes. Research on SBIRT in primary care for adolescents lags behind that of adult research, although this population will benefit most from it. Policy opportunities exist for implementing such programs (through more flexible financing mechanisms, as we have discussed), but the field has done little research to guide innovation.

In critical clinical and policy areas, research has relied on the adult SU literature (and sometimes the psychiatric literature). Future research must also target all components of health care reform and parity, with particular attention to the complexities and unintended consequences discussed above. The changes in federal and state laws on parity and health care reform will affect adolescents' SU, psychiatric, and medical treatment in ways unique to each system, but they also bring extraordinary opportunities to improve integrated treatment across conditions. It is here that the variations across systems will be most crucial to understand, for researchers, policy makers, advocates, and clinicians alike.

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