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Medicaid care management: Description of high-cost addictions treatment clients

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ABSTRACT

High utilizers of alcohol and other drug treatment (AODTx) services are a priority for healthcare cost control. We examine characteristics of Medicaid-funded AODTx clients, comparing three groups: individuals < 90th percentile of AODTx expenditures ($n = 41{,}054$); high-cost clients in the top decile of AODTx expenditures (HC; $n = 5{,}718$); and 1760 enrollees in a chronic care management (CM) program for HC clients implemented in 22 counties in New York State. Medicaid and state AODTx registry databases were combined to draw demographic, clinical, social needs and treatment history data. HC clients accounted for 49% of AODTx costs funded by Medicaid. As expected, HC clients had significant social welfare needs, comorbid medical and psychiatric conditions, and use of inpatient services. The CM program was successful in enrolling some high-needs, high-cost clients but faced barriers to reaching the most costly and disengaged individuals.

1. Introduction

With the expansion of insurance coverage as well as benefits under healthcare reform, there is a growing economic imperative to better manage care for substance use disorders (Barry & Huskamp, 2011; Buck, 2011). Unlike the treatment for virtually any other health care problem, the overwhelming majority (about 75%) of treatment costs for alcohol and other drug use disorders (AOD) are drawn from public funding (Mark, Coffey, McKusick et al., 2005). Among government agencies, state and local governments fund the largest proportion of treatment services ($8.4 billion), making up approximately 61% of all public funding. Thus, state and county governments have a huge stake in controlling the costs and improving the quality of AOD treatment.

To contain costs among the highest cost enrollees, state Medicaid programs have been introducing care management (CM) programs during the past two decades to address the particular needs of chronic medical patients that are not necessarily served by the current healthcare delivery system (Gillespie & Rossiter, 2003; Sprague, 2003; Wheatley, 2002). It is well accepted that substance dependence is a chronic condition that shares many features with other chronic conditions, such as asthma, hypertension and diabetes (McLellan, Lewis, O'Brien, & Kleber, 2000). In fact, care management targeting chronic conditions, and specifically AOD, among Medicaid recipients is an important component of healthcare reform efforts legislated in the Affordable Care Act (Patient Protection and Affordable Care Act, 2010). Although features of chronic care management programs vary, in general they are characterized by (1) use of administrative records to identify high-cost utilizers with a particular illness and target outreach; (2) greater patient education and promotion of self-management; (3) coordination of care using dedicated care management staff; (4) encouragement of evidenced-based practices and (5) greater use of clinical feedback information systems to improve care (Crippen, 2002; Krumholz et al., 2006; Short, Mays, & Mittler, 2003; Sprague, 2003).

Logic and evidence suggest that chronic care management programs may be an effective strategy to improve quality and reduce costs for Medicaid enrollees with AOD (Morgenstern et al., 2006; Morgenstern, Hogue, Dauber, Dasaro, and McKay, 2009). However, to the best of our knowledge there has yet to be a demonstration and evaluation of a state-wide care management program under Medicaid specifically targeting high-cost individuals with AOD. Starting in September of 2006, the state of New York implemented a $25 million chronic care management program—Managed Addiction Treatment Services (MATS)—for high AOD treatment cost Medicaid recipients. The care management program was designed for clients in the 90th percentile of addictions treatment costs paid by Medicaid, generally with annual spending in excess of $10,000–$15,000 (varied by county). As is often observed, this group accounted for roughly half of all state spending for AOD treatment. The program designers drew from observations in the field to infer that the majority of these high-cost clients had poorly

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managed AOD and that they faced significant barriers to effective engagement with treatment. The goal of the intervention was to get clients engaged in appropriate levels of care and to reduce Medicaid costs due to inappropriate or inefficient use of high-cost (e.g., detoxification, inpatient, emergency department) crisis services. The program model presumed that better continuity of addictions treatment as well as connection to mental health care, medical services and the social safety net would lower overall Medicaid spending.

This study is a baseline description of the care management enrollees as well as a description of high-cost clients within the AOD treatment system. The analysis of high-cost clients may serve to inform on the characteristics of clients that would be targets for interventions in future healthcare reform efforts. New York has long covered indigent childless, non-elderly adults under its Medicaid program and has a large and diverse addictions population. Other states will soon extend Medicaid coverage to uninsured low-income individuals, and a disproportionate number of these individuals will be affected by substance use disorders (Donohue, Garfield, & Lave, 2010). As other states expand enrollment yet contend with pressures to contain costs, there may be comparable pressures to focus on high-cost clients and devise interventions to reduce inefficient spending.

In this study we present demographic and clinical characteristics as well as service utilization and cost patterns of the enrolled care management clients as well as high-cost AOD clients in 2008 who met the New York State high-cost threshold. To date, there have not been population-based empirical descriptions of the socio-demographic, clinical, and healthcare utilization characteristics of high-cost clients. Specifically, we were interested in comparing the high-cost cohort to other individuals receiving AOD treatment to better understand what factors are associated with being a high-cost client as well as what findings indicated about the types of services that might be needed to improve care. This study also compares the clients enrolled in the care management service with non-enrolled high-cost clients. Because program enrollment involves use of administrative data followed by outreach to those who meet criteria, care management programs must devise selection and enrollment strategies to best recruit these clients who may be difficult to locate due to social instability wrought by their substance use disorders.

2. Materials and methods

2.1. Participants

A total of 1760 CM clients were enrolled across 22 counties in New York State (other than New York City) over a two-and-a-quarter-year period ending in December 2008: 160 in the last 3 months of 2006; 798 in 2007; and 802 in 2008. For comparison, we examine Medicaid data for HC ($n = 5{,}718$) and general AOD treatment clients ($n = 41{,}054$) in calendar year 2008. HC clients were those for whom Medicaid payments for treatment of substance use disorders equaled or exceeded $10,000 in 2008, whereas general AOD treatment clients had Medicaid AOD treatment claims less than $10,000. At the time of the study, New York Medicaid paid on a fee-for-service basis for the vast majority of addictions treatment, including hospital-based detoxification, inpatient rehabilitation, outpatient counseling, and methadone. Data used for analysis are limited to year 2008 for HC and other AOD treatment clients. For CM clients, data for the 12 months immediately preceding admission to the program were used. Descriptive information on healthcare utilization, demographics and clinical characteristics are presented in Table 1.

2.2. Care management program description

An important feature of MATS was that the program was managed at the county level where social services, medical and behavioral healthcare are coordinated. In addition, county governments bear a share of the financial costs for high-cost clients and, thus, had a direct and immediate monetary incentive to coordinate and improve care. Twenty-two counties and the City of New York received contracts to establish county-level care management programs coordinated by the counties' respective MH/substance use disorders agencies with cooperation from the county department of social services (i.e., welfare offices). Program eligibility was determined by the state via a review of Medicaid expenditures after obtaining appropriate patient consents. Care management programs contacted high utilizers and then engaged, assessed, monitored, followed, and linked them to needed care across substance abuse treatment, mental and medical health, and social service systems. Eligible individuals were identified via Medicaid record searches to find those whose cost of AOD treatment exceeded a threshold that approximated the 90th percentile of spending, which ranged between $10,000 and $15,000 across counties. Statewide approximately 8,000 individuals in a given year

Table 1
Baseline characteristics of MATS compared to high-cost (HC) clients and general AOD clients.

Medicaid data	General AOD	Effect size	HC > AOD TX 10 K	Effect size[a]	MATS (CM)
n (48,532)	41,054		5718		1760
Proportion	84.6%		11.8%		3.6%
Costs					
Total Medicaid cost	$10,256	1.13[b]	$30,938	−0.32[b]	$22,320
SD	(16,453)*		(28,041)		(19,957)
AOD TX cost	$2686	3.23[b]	$18,052	−0.55[b]	$12,010
SD	(2687)		(11,059)		(10,473)
Mental health cost	$1814	0.21[b]	$3867	−0.05[b]	$3192
SD	(8837)		(13,081)		(9456)
Medical cost	$5591	0.24[b]	$8885	−0.11[b]	$7006
SD	(12,555)		(18,570)		(11,010)
Treatment history—detox utilization/cost					
None	85%		46%		64%
One to two	14%		37%		28%
Three or more	2%		17%		8%
Detox cost	$325	1.28[b]	$5590	−0.31[b]	$2412
SD	(1288)		(11,189)		(5795)
Rehab utilization/cost					
None	89%		24%		51%
One to two	10%		64%		44%
Three or more	1%		12%		5%
Rehab cost	$439	2.42[b]	$7648	−0.39[b]	$4804
SD	(1522)		(7451)		(6767)
Outpatient					
Outpatient visits	18.76	1.06[b]	51.58	−0.05[b]	48.60
SD	(25)		(58)		(55)
Outpatient cost	$1376	1.14[b]	$4106	−0.09[b]	$3689
SD	(1863)		(4649)		(4285)
Emergency room					
ER visits	1.09	0.38[b]	2.39	−0.12[b]	1.75
SD	(3.27)		(6.42)		(3.73)
ER cost	$108	0.42[b]	$288	−0.15[b]	$178
SD	(319)		(847)		(416)
Demographics					
Gender—male	64%	1.31[c]	70%	0.57[c]	57%
Age mean	34	0.26[b]	37	0.25[b]	40
SD	(11)		(12)		(10)
Clinical complexity					
Serious MH	39%	1.91[c]	55%	1.23[c]	60%
Chronic Conditions (≥ 1)	31%	1.42[c]	39%	1.00[c]	39%
Hepatitis-C	12%	2.19[c]	23%	0.94[c]	22%
Asthma	18%	1.28[c]	22%	1.00[c]	22%
Cardiovascular disease	9%	1.51[c]	13%	0.74[c]	10%
COPD	9%	1.51[c]	13%	1.09[c]	14%
Diabetes	10%	1.23[c]	12%	0.91[c]	11%
AIDS	4%	1.81[c]	7%	0.55[c]	4%

[a] Annotations regarding effect size.
[b] Cohen's *d* for mean comparison (continuous variable): $d = \frac{\overline{x}_2 - \overline{x}_1}{s}$, where $s = \sqrt{\frac{(n_1-1)s_1^2+(n_2-1)s_2^2}{n_1+n_2}}$, $s_i^2 = \frac{1}{n_i-1}\sum_{j=1}^{n_i}(x_{ij}-\overline{x}_i)$ and $i = 1,2$.
[c] *OR* (odds ratio) for binary variable: $\mathrm{OR} = \frac{\text{odds of 2nd group}}{\text{odds of 1st group}} = \frac{(x_2\,\%)/(1-x_2\,\%)}{(x_1\,\%)/(1-x_1\,\%)}$.