

Access to Publicly Funded Methadone Maintenance Treatment in Two Western States

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Abstract

This study examined individual and system characteristics associated with access to methadone maintenance treatment (MMT) among Medicaid-eligible adults entering treatment for opiate use in Oregon and Washington. Logistic regression was used to examine the relative contributions of predisposing, need, and enabling characteristics on access to MMT. Although the number of methadone admissions increased in both states, access rates (the percentage of opiate-using adults presenting for treatment who were placed on methadone) declined after 1995. Adults in remote counties were one fifth to one tenth as likely to be placed in a methadone maintenance program than those living in counties with a methadone clinic. Other significant barriers to access included polydrug use, legal system referral, residence in a group home, lack of income, and homelessness. Factors promoting access included prior methadone use, pregnancy, and self-referral to treatment. These results suggest that more can be done to expand access to methadone maintenance.

Introduction

An estimated 600,000 persons are dependent on opiates in this country, and current evidence suggests that the problem may be growing.¹ Admissions to treatment dramatically increased in most states offering treatment between 1993 and 1998,² opiate-related emergency room visits more than doubled between 1991 and 1995, and the annual number of opiate-related deaths increased by 74% during the same time period.^{1,3}

Methadone maintenance treatment (MMT), generally considered to be the most effective treatment for opioid dependence, has been shown to reduce the risk of the most serious public health and economic consequences of opiate addiction including the spread of HIV and hepatitis, crime, and joblessness.^{1,4-7}

Despite the growing prevalence of opiate use, political and geographic factors often limit access to methadone. Current estimates suggest that only 14% to 19% of opiate-dependent individuals have access to MMT.^{1,8} Because of the serious public health risks associated with opiate abuse and the demonstrated effectiveness of MMT, the National Consensus Development Panel on Effective Medical Treatment of Opiate Addiction concluded that "all persons dependent on

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opiates should have access to methadone hydrochloride maintenance therapy under legal supervision.”¹

Access to Methadone Maintenance Therapy

Given the importance of MMT, it is surprising how little research has been conducted to examine individual and system characteristics influencing access to MMT. Among the most commonly cited explanations for the low access rates are underfinancing, inaccessibility of methadone clinics, and stigma associated with heroin addiction.⁴

The majority of individuals admitted for opiate use (71%) are either unemployed or not in the labor force. Nevertheless, as of 1999 only 25 states covered MMT in their Medicaid plans.⁹ In those states that do offer treatment, limited capacity inhibits providers from meeting the high demand. Furthermore, individuals living in areas that lack treatment centers, especially rural areas, are less likely to receive treatment.^{10–12}

To remedy this situation, government oversight has recently shifted toward accreditation standards similar to those in effect for other healthcare organizations. New provisions in government regulation should permit the development of new delivery models and changes in provider practice, such as take-home doses, may help expand the availability of MMT, especially in rural and suburban settings.¹³ Recent changes may, however, take months or years to improve access to treatment.

Of those states that cover methadone treatment through Medicaid, 12 utilize managed care programs.⁹ One of the primary concerns about managed care is that financial incentives associated with managed care will reduce access to substance abuse treatment.¹⁴ Appropriate care management could, however, improve access to mental health and substance abuse treatment while maintaining the quality of care.⁹ For example, evidence from analyses of Medicaid recipients enrolled in Massachusetts' behavioral health carve-out and Oregon's prepaid health plans suggest that access to substance abuse services has increased under managed care.^{9,10}

There is a dearth of research on individual characteristics associated with access to MMT, and the studies that do exist do not agree on which characteristics influence access.¹⁵ For example, although some studies have found evidence of racial disparities in access to MMT and in access to substance abuse treatment in general,^{10,16} a recent review of the literature on characteristics associated with entry into substance abuse treatment concluded that few studies examine demographic variables and fewer still use comparison groups. Thus no definitive conclusions can be drawn about the impact of demographic characteristics on treatment entry.¹⁵ Studies have also consistently shown that financial factors limit access to methadone treatment. Lack of insurance and low income are associated with low treatment entry. Even very small co-pays have been shown to reduce utilization of MMT.^{17,18} One of the reasons that individual characteristics may be inconsistently related to the utilization of methadone is that among the most commonly cited reasons for treatment entry are legal pressure, family pressure, and a desire to change.^{15,19}

With so much attention in prior research focused on demonstrating the efficacy of MMT for treating opiate dependence, very little, if any, research has been conducted on systemic factors that influence access to MMT. To more fully disentangle systemic factors, it is also necessary to take into account individual characteristics that predispose use of services, reflect the need for services, or enable access to care.²⁰

The current study adds to the existing literature on access to substance abuse treatment by examining the impact of both system characteristics and individual characteristics on rates of access to MMT. Administrative data collected over a 9-year period from the state substance abuse treatment agencies of 2 western states are analyzed to identify trends in access to MMT. The impact of system characteristics, including the introduction of managed care in Oregon, and the geographic distribution of methadone clinics in both states are examined. Finally, the behavioral model is used to organize

analyses examining the relative impact of individual characteristics, including predisposing, need, and enabling factors, on access.

Methods

Study sites

Oregon and Washington are 2 of 25 states that include MMT as a covered Medicaid benefit. Although included in the benefit, methadone clinics are geographically limited to the 4 most populous counties in each state.

Oregon currently provides full coverage for methadone under Medicaid managed care and administers the benefit through prepaid health plans. Enrollment in a prepaid health plan is mandated in most counties. In May 1995 the Oregon Health Plan integrated the chemical dependency benefit with physical healthcare and took measures to prevent problems encountered in other demonstration projects. For example, patient placement criteria ensure that placement decisions are based on patient needs rather than financial considerations.^{21,22} A Section 1115 waiver, obtained from the Centers for Medicaid and Medicare Services, allowed Oregon to expand Medicaid coverage to all adults and their dependents who fall below the federal poverty level.^{10,23}

The neighboring state of Washington is geographically and demographically similar, but substance abuse services are state administered and providers are reimbursed for treatment services to Medicaid recipients on a fee-for-service basis. Although Washington provides full coverage for MMT, matching funds are scarce and legislation limits the size and location of methadone clinics.

Data

Data for this study come from state databases for publicly funded substance abuse treatment linked to Medicaid eligibility files. Each record in the treatment database reflects one episode of treatment for one client from admission to discharge at one facility. Oregon maintains the Client Process Monitoring System (CPMS) to track admissions and discharges to publicly funded treatment. Washington developed the Treatment and Assessment Report Generation Tool (TARGET) for the same purpose.

Sample

All Medicaid-eligible adults (aged 18–64) presenting for publicly funded treatment primarily for opiate use between 1992 and 2000 in Oregon and Washington were included in the study. Medicaid eligibility was determined for the day each client presented for treatment. Table 1 provides demographic characteristics of the total unduplicated sample in each state and 3 cohorts (1992, 1996, and 2000). Comparisons were made on each variable to detect significant changes between the 1992 and 1996 cohorts and between the 1996 and 2000 admission cohorts.

The most notable changes occurred primarily as a result of an expanded Medicaid eligible population in both states. In 1994, Oregon extended eligibility to single adults and childless couples, a group making extensive use of substance abuse treatment,¹⁰ especially for opiate use. These individuals account for an increasing percentage of the new admissions during the study period. In Washington, population growth, a simplified enrollment form, and an expanded state program for the indigent led to a more gradual but steady increase in Medicaid enrollees. Welfare reform resulted in reductions in the number eligible through AFDC/TANF in both states. The changes in gender, referral source, living situation, and income source are probably linked to these changes in the eligible population.

There were also some shifts during the study period that may reflect population changes in drug use patterns. Later admission cohorts were both younger and older and were less likely to use cocaine but more likely to use amphetamines (primarily methamphetamines).

Table 1

Characteristics of Medicaid-eligible adults admitted for treatment with opiates as the primary drug between 1992 and 2000

Characteristic	Oregon				Washington			
	1992	1996	2000	Total	1992	1996	2000	Total
<i>N</i>	436	2245	1903	8362	935	2283	2522	10,604
<i>Predisposing characteristics</i>								
<i>Age at intake</i>								
18–25	6%	10%	12%*	13%	8%	10%	11%*	13%
26–49	89%	85%	80%	82%	87%	85%	79%	81%
50–64	5%	5%	8%	6%	5%	5%	10%	6%
Male	33%	53%*	55%	55%	42%	52%*	50%	53%
<i>Ethnicity</i>								
White	81%	84%	83%	83%	71%	80%*	76%*	77%
Black	10%	8%	8%	8%	18%	11%	12%	12%
Other	8%	9%	9%	9%	10%	9%	12%	11%
<i>Medicaid category</i>								
Disabled	29%	15%*	5%*	11%	27%	31%*	29%*	25%
AFDC/TANF	54%	12%	8%	15%	35%	21%	19%	22%
Other poverty	6%	1%	1%	2%	2%	3%	1%	3%
Expansion (waiver)	0%	68%	80%	67%	...	...	...	...
Other program	11%	4%	5%	5%	36%	45%	51%	50%
<i>Need characteristics</i>								
<i>Years of opiate use</i>								
<3	5%	14%*	11%*	17%	8%	15%*	13%*	17%
3–9	26%	23%	29%	26%	24%	25%	29%	27%
10+	69%	63%	59%	58%	68%	60%	58%	56%
Needle user at intake	90%	89%	86%*	85%	86%	90%*	85%*	84%
<i>Frequency of opiate use, past 30 d</i>								
Low	13%	6%*	8%*	5%	16%	18%	16%*	15%
Moderate	15%	12%	9%	13%	9%	10%	10%	11%
High	71%	84%	82%	82%	75%	71%	75%	74%
Cocaine as secondary drug	44%	33%*	26%*	29%	47%	51%	50%	46%
Amphetamine as secondary drug	8%	12%*	12%	12%	3%	10%*	12%	11%
Alcohol as secondary drug	27%	30%	26%*	30%	36%	42%*	42%	42%
Co-occurring mental health needs	...	...	...	...	19%	30%*	44%*	30%
Arrested in past 2 years	41%	30%*	42%*	32%	...	49%	43%*	40%
<i>Enabling characteristics</i>								
<i>Proximity of residence to clinics</i>								
County with clinic	82%	80%	81%	78%	76%	70%*	66%	67%
Adjacent county	11%	15%	13%	15%	13%	14%	15%	16%
Distant county	7%	5%	6%	7%	10%	15%	18%	17%
<i>Medicaid eligibility (past 6 mo)</i>								
<5 mo	43%	38%	45%*	56%	41%	42%	54%*	55%
5–6 mo	57%	62%	55%	44%	59%	58%	46%	45%

(continues)

Table 1
(Continued)

Characteristic	Oregon				Washington			
	1992	1996	2000	Total	1992	1996	2000	Total
Primary referral source								
Self/family	28%	54%*	62%*	50%	29%	18%*	26%*	21%
Legal system	3%	6%	8%	7%	27%	26%	20%	26%
Treatment agency	52%	19%	12%	23%	4%	8%	8%	8%
Other source	16%	21%	19%	20%	39%	47%	46%	45%
Not employed/not in work force	92%	84%*	85%	85%	...	18%	22%*	20%
No income source	23%	56%*	63%*	57%	...	26%	29%	29%
Marital status								
Married	22%	23%*	18%*	21%	...	12%	10%	14%
Single	48%	40%	42%	40%	...	47%	47%	48%
Never married	30%	37%	41%	39%	...	41%	43%	38%
Living situation								
Own home	28%	43%*	40%*	38%	86%	71%*	67%*	69%
Group home	5%	5%	6%	4%	2%	3%	3%	3%
Homeless	2%	17%	22%	17%	9%	15%	18%	16%
Other	65%	35%	32%	40%	2%	12%	11%	12%
Pregnant	1%	2%	1%	2%	6%	2%*	1%	2%
ADATSA	...	...	...	...	19%	15%	12%*	16%

Ellipses indicate that the variable was not available in that data set for that year.

* $P < .01$ for comparisons of 1996 with 1992 and 2000 with 1996.

Conceptual model

The behavioral model of utilization developed by Andersen provided a conceptual framework for planning the analyses presented in this article.^{20,24,25} According to the behavioral model, individuals' healthcare utilization is a function of their predisposition to use services, their need for care, and factors that enable or impede the use of services.²⁰ However, to predict access to a particular modality of substance abuse treatment, the focus of the model must be to predict the clinician's placement recommendation based on patient characteristics and other factors, rather than predict patient behavior. Furthermore, systemic factors are thought to strongly influence the final placement decision. Figure 1 illustrates a reformulation of the behavioral model used in the current study.

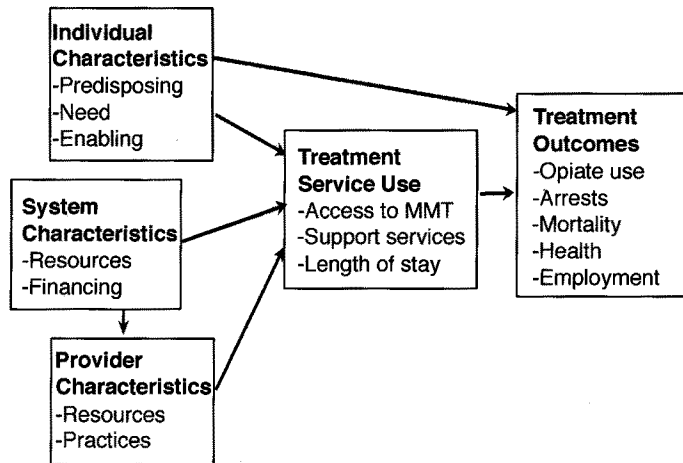
The choice of factors to measure and placement in the model may be specific to the particular vulnerable population studied.²⁵ This study examines access to methadone among Medicaid-eligible adults as a function of predisposing factors including demographic characteristics and Medicaid eligibility category; need characteristics including years of drug use, polydrug use, history of substance abuse treatment, and mental illness; and enabling characteristics including income, stability of Medicaid enrollment, geographic proximity to a methadone clinic, marital status, living situation, employment status, and criminal behavior history.

Access rates

Access was defined as placement in MMT rather than an alternative modality. The rate calculated is the number of individuals admitted to MMT during the year divided by the number

Figure 1

Conceptual model for this study adapted from Andersen's behavioral model



of individuals admitted to treatment with opiates as the primary drug. The rate is expressed as a percentage.

Alternative modalities in both states include regular outpatient, residential, and residential detoxification services. Outpatient and methadone services are included in the Medicaid benefit for both states while residential and detoxification are paid primarily from the federal block grant to states.

Independent variables

Variables to predict MMT access were derived from 2 administrative datasets in each state. Medicaid eligibility category and stability of eligibility were determined from Medicaid eligibility files. All other variables were obtained from state treatment databases. The study recoded variables from the 2 state databases into matching independent variables.

Predisposing

Factors that predispose an individual to use treatment were assessed using demographic variables such as age, sex, race, and Medicaid program. For the purpose of this study, the Medicaid programs were collapsed into 4 categories: welfare (Aid to Families with Dependent Children [AFDC] and Temporary Aid to Needy Families [TANF] recipients), disabled (Supplemental Security Income [SSI] recipients), expansion group (single individuals and childless couples newly eligible under the Section 1115 waiver), and other poverty programs (a set of small programs including optional programs unique to each state).

Need

Factors that measured an individual's need for treatment services were assessed using the number of years of opiate use, needle use, the frequency of opiate use in the past 30 days at intake (coded on a 5-point scale but defined differently in each state), polydrug use (including alcohol, cocaine, and amphetamines) in the past 30 days, and treatment history (whether the individual had any substance abuse treatment in the 2 years prior to the index treatment episode or had been in MMT in the 2

years prior to the index treatment episode). A measure of co-occurring mental illness (derived from 4 questions about current use of mental health services or medications and assessed need for mental health services) was available for the Washington sample only.

Enabling

Factors that represent personal or community enabling resources were measured using proximity to a methadone clinic (residence in a county with a clinic, in an adjacent county, or in a distant county), months covered by Medicaid (for 6 months prior to intake to treatment), source of referral to treatment (self, legal system, treatment provider, other), marital status (never married, married, now single), source of income, living situation (own home, group home, homeless), and pregnancy. For the purposes of this study, marital status and living situation were treated as enabling factors rather than predisposing social structure factors.

Analyses

Logistic regression was used to examine the relative contribution of predisposing, need, and enabling factors to access to methadone maintenance programs. Each category of predictors was added as a block, and enabling factors were added last. This analysis included only the first treatment episode between 1994 and 2000 for each individual since some predictors required a 2-year observation period.

Results

Access rates

Figure 2 shows the number of admissions in Oregon of Medicaid-eligible adults who sought treatment during the study period and had opiates as their primary drug. Each band represents the proportion placed in 1 of 4 treatment modalities: (a) methadone maintenance, (b) outpatient drug free,

Figure 2

Placement of adults presenting for treatment with opiate use in Oregon. The number of admissions to MMT decreased after 1995, whereas admissions to other modalities increased, and then remained stable as admissions to other modalities declined after 1998

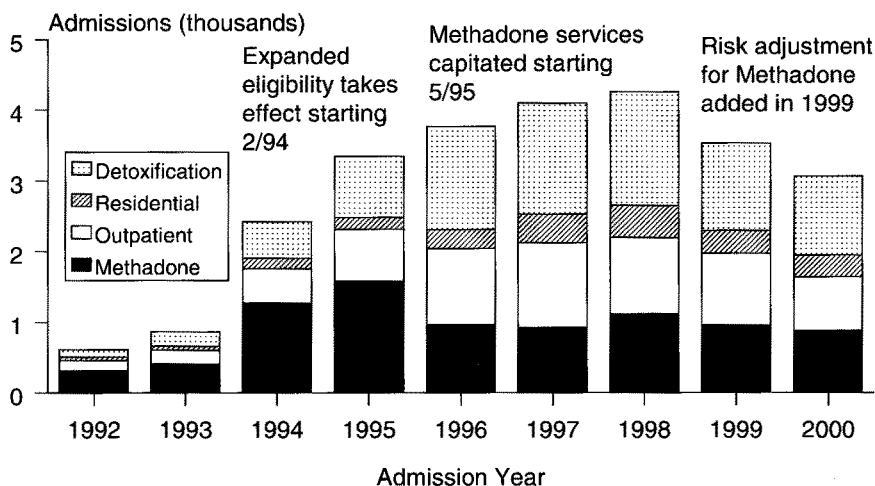
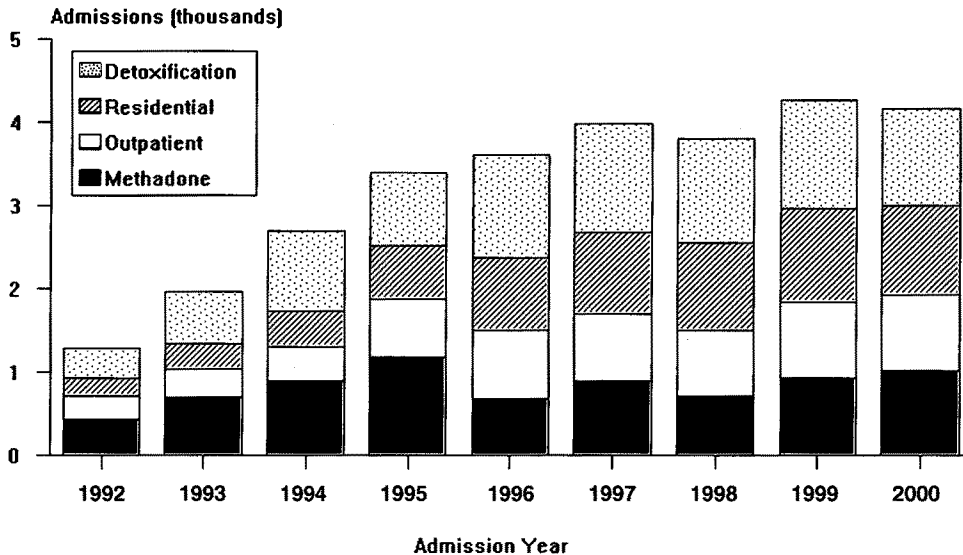


Figure 3

Placement of adults presenting for treatment with opiate use in Washington. The number of methadone admissions dropped after 1995, whereas admissions to other modalities increased.



(c) residential, and (d) residential detoxification. A dramatic increase in the number of admissions occurred during 1994 and 1995 as adults newly eligible for Medicaid presented for treatment. After a peak in 1995, the number of admissions to methadone maintenance declined and then leveled off, whereas the number of alternative placements increased, especially outpatient and detoxification. After 1998 total admissions for opiate use declined, but the number of methadone maintenance placements remained relatively constant.

Figure 3 reveals a similar, though more gradual, increase in admissions of Medicaid-eligible adults with opiate use in Washington. This increase was associated with steady growth in the Medicaid-eligible population and expansion of a state-funded program for the indigent. As in Oregon, the number of methadone placements in Washington leveled off starting in 1996, whereas the number of alternative placements. Residential placements were much more common in Washington.

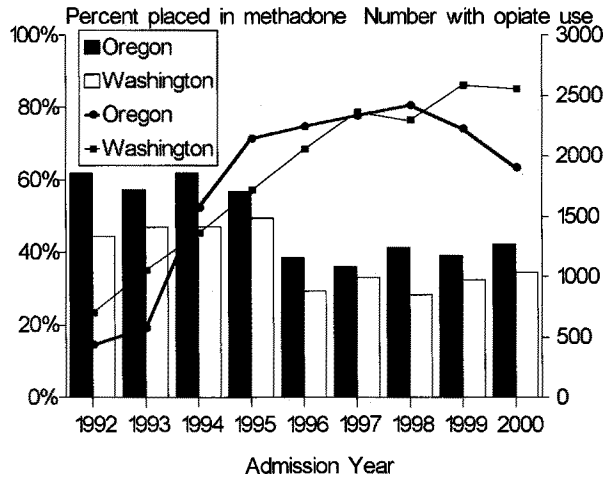
Figure 4 shows the rate of methadone placements for Oregon and Washington for the 9-year period from 1992 until 2000 and the total unduplicated number of individuals admitted for opiate use in each year. As the number of individuals admitted for opiates increased to about 2000, access rates in each state declined by 15 to 20 percentage points. The new rate was about two thirds of the previous rate. The change in access between the 1992 and 1996 cohorts was significant for both Oregon ($\chi^2 = 80.9, P < .001$) and Washington ($\chi^2 = 62.9, P < .001$). Access to MMT remained higher among opiate admissions in Oregon in all years.

Predicting access

Table 2 summarizes the results of a logistic regression predicting access to MMT in each state. The analysis included only the first admission between 1994 and 2000 for each individual. Predictors were added in conceptual blocks (predisposing, need, and enabling) but the odds ratios were

Figure 4

The percentage of adults placed in MMT (bars) declined as the number of individuals admitted to treatment for opiate use (lines) increased. This figure reflects an unduplicated count of individuals within a calendar year



relatively stable across the 3 models and so only the full model was included. The full Oregon model ($\chi^2 = 3141.7, P < .001, R^2 = 0.51$) correctly predicted 82% of the placements while the full Washington model ($\chi^2 = 4038.4, P < .001, R^2 = 0.52$) predicted 83% of the placements.

Predisposing characteristics

Demographic characteristics that might predispose an individual to access methadone, such as gender, ethnicity, and Medicaid eligibility category were generally not significant predictors for either state. Adults in Oregon's Medicaid expansion eligibility category (childless couples and single adults) were, however, more likely to obtain MMT than were traditional AFDC/TANF adults and Washington males were less likely to gain access.

Need characteristics

Several indicators of need were good predictors of access, especially severity measures and past experience with MMT. Individuals using needles or those with a longer history of opiate use were more likely to obtain access. High-frequency (daily) users in Washington were also more likely to gain access to methadone. In contrast, individuals using other drugs, especially alcohol and amphetamines (including methamphetamines), were often placed in outpatient programs and thus only about half as likely to be placed in MMT. Cocaine use was not a significant predictor of access.

Individuals with prior experience in MMT in the past 2 years were 3 to 5 times as likely to be placed in another program. Individuals with prior experience in other modalities of treatment in the past 2 years, at least in Oregon, were less likely to obtain methadone. Recent involvement in the legal system predicted greater access in Oregon.

Table 2

Results of logistic regressions predicting access to methadone maintenance for Oregon and Washington adults admitted for opiate use

Predictor	Oregon			Washington		
	A	B	C	A	B	C
Predisposing characteristic						
Young (aged 18–30)	0.48*	0.81	0.87	0.67 [†]	0.99	0.98
Old (aged 50–64)	1.18	0.87	0.91	1.32 [†]	1.2	1.26
Male	0.98	0.93	1.14	0.78 [‡]	0.75 [‡]	0.79 [‡]
White (versus other race)	1.30	1.25	1.08	0.77 [‡]	0.72 [‡]	0.73 [‡]
Black (versus other race)	1.15	1.01	0.92	1.44 [‡]	1.09	0.87
Disabled (versus AFDC/TANF)	1.3	0.93	1.04	1.32 [‡]	1.16	1.31 [‡]
Expansion (versus AFDC/TANF)	0.85	0.77 [‡]	1.37 [‡]
Other (versus AFDC/TANF)	1.14	1.13	1.38	0.39 [‡]	0.39 [‡]	0.84
Need characteristic						
Years of opiate use (log transformation)		1.62 [‡]	1.62 [‡]		1.37 [‡]	1.38 [‡]
Needle user		2.69 [‡]	2.95 [‡]		3.69 [‡]	2.91 [‡]
Frequency of opiate use		0.87 [‡]	0.92 [‡]		1.30 [‡]	1.20 [‡]
Cocaine as secondary drug		0.84 [‡]	0.97		0.99	1.12
Amphetamines as secondary drug		0.43 [‡]	0.53 [‡]		0.37 [‡]	0.52 [‡]
Alcohol as secondary drug		0.38 [‡]	0.41 [‡]		0.48 [‡]	0.54 [‡]
Mental health needs		...	...		1.14	1.19
Arrested (past 2 y)		1.43 [‡]	1.95 [‡]		0.77 [‡]	0.98
Prior methadone (past 2 y)		7.28 [‡]	4.74 [‡]		3.88 [‡]	3.52 [‡]
Prior treatment (past 2 y)		0.54 [‡]	0.55 [‡]		0.87	0.72
Enabling characteristic						
Adjacent county (vs county with clinic)			0.67 [‡]			0.60 [‡]
Distant county (vs. county with clinic)			0.20 [‡]			0.09 [‡]
Self referral			2.91 [‡]			5.63 [‡]
Treatment agency referral			0.14 [‡]			1.38
Legal referral			7.88 [‡]			0.72
Not employable			1.42 [‡]			1.68 [‡]
No source of income			0.24 [‡]			0.25 [‡]
Never married (versus married)			0.67 [‡]			0.79
Now single (versus married)			0.66 [‡]			0.73 [‡]
Live in own home (versus other)			1.14			1.82 [‡]
Live in group home (versus other)			0.08 [‡]			0.56
Homeless (versus other)			0.29 [‡]			0.55 [‡]
Pregnant			4.26 [‡]			5.76 [‡]
Months Medicaid eligible, past 6 mo			0.94 [‡]			0.99
Enrolled in ADATSA			...			0.41 [‡]

AFDC indicates Aid to Families with Dependent Children; TANF, Temporary Aid to Needy Families; ADASTA, Alcohol and Drug Abuse Prevention and Treatment. Ellipses indicate that the variable was not available in the data set. The first admission for each individual presenting for treatment with opiate use between 1994 and 2000 was included in the analysis (*N* = 7804 for Oregon; *N* = 9292 for Washington).

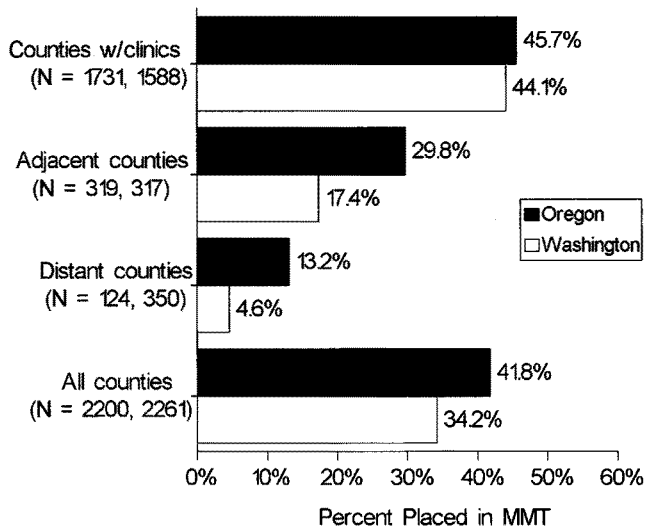
**P* < .001.

[†]*P* < .05.

[‡]*P* < .01.

Figure 5

Methadone maintenance placements as a function of proximity to methadone clinics. The farther a client lives from the nearest methadone clinic, the lower the probability of being placed in MMT



Enabling characteristics

Factors that affect the means of accessing treatment strongly affected access. Overall, adding this block of predictors after controlling for predisposing and need factors raised the pseudo R^2 from 0.18 to 0.40 for Oregon and from 0.18 to 0.43 for Washington. Proximity to methadone clinics, source of referral to treatment, and living situation were 3 important clusters of enabling factors.

Proximity to methadone clinics was a strong predictor of access to MMT in both states. Individuals living in rural counties not adjacent to a county with a methadone clinic were about one fifth as likely to gain access to methadone compared to those living in counties with a methadone clinic in Oregon and only one tenth as likely in Washington (see Fig 5).

The primary source of referral to treatment was a good predictor of access, though the results differed in the 2 states. Self-referrals were nearly 3 to 6 times more likely to be placed in MMT than other referral sources. Referrals from community treatment agencies were 8 times as likely to obtain access in Oregon. Referrals from the legal system in Oregon were, however, only one seventh as likely to gain access.

Individuals living in their own home or who are unemployable owing to a physical or emotional disabling condition were more likely to obtain access. Pregnant women (a national priority for admission to MMT) were 5 to 6 times as likely to gain access. In contrast, homelessness, lack of an income source, and living in a group home appeared to pose significant barriers to access.

Discussion

The National Treatment Plan focuses attention on ensuring access, reducing stigma, and increasing coverage for substance abuse treatment.²⁶ These goals are particularly important for individuals suffering from opiate dependence. This study examined client characteristics and systemic factors that influence these individuals' access to MMT.

Financing and capacity

As the number of Medicaid-eligible adults admitted for opiate use increased in both Oregon and Washington, access rates declined sharply before leveling off. While significant changes in patient characteristics occurred during the study period, the primary mechanisms responsible for the observed patterns appear to be constraints of funding and capacity. A focus group of methadone providers, state officials, managed care representatives, and researchers from both states helped the research team interpret these findings.

In Washington, a scarcity of matching funds and limits on the size and location of methadone clinics have conspired to restrict the availability of MMT. Fortunately, some of these barriers were removed during the 2001 legislative session. The state also puts an emphasis on residential services, especially for the indigent. In Oregon, expanded eligibility provided coverage to a large group of previously uninsured adults with a relatively high prevalence of opiate use, resulting in a dramatic increase in the number of MMT admissions between 1992 and 1995. After 1995 the rate of access to MMT in Oregon appears, however, to have been limited by capacity as the number entering MMT increased despite evidence that access to substance abuse treatment in general increased.^{10,27}

Despite concerns that the shift to managed care in Oregon might result in reduced use of substance abuse treatment services, in general access increased subsequent to the integration of the chemical dependency benefit with physical healthcare under the Oregon Health Plan.^{10,27} The results for MMT services are, however, mixed. Expanded Medicaid eligibility resulted in a dramatic increase in the number of admissions for opiate use and the number of individuals placed in methadone programs, but the percentage of MMT placements dropped. Some health plan officials reported that opiate dependence was treated like other chronic illnesses—that is, treatment was essentially an entitlement—and MMT access rates were relatively high for these health plans. Some anecdotal evidence did, however, suggest that although prepaid health plans adopted a generally open policy toward MMT and did not deny services, they did exert some control over access. Examples of control mechanisms include establishing contracts with only a single methadone provider and temporarily freezing new admissions to MMT. Methadone providers typically received discounted rates for individuals enrolled in prepaid health plans (typically 75% to 85% of the state rate). The discount may have served to deter providers from expanding capacity.

Factors influencing access

As expected, demographic characteristics were not good predictors of access. Furthermore, no evidence in the current study suggests racial disparities in MMT in either state. Modest differences were observed for Washington whites, males, and the disabled as well as expansion category adults in Oregon.

In contrast, most need characteristics were significant predictors of access. Years of opiate use and needle use promoted access in both states. Prior use of MMT services was also a strong predictor of a methadone placement. Polydrug use, at least in the case of alcohol and amphetamines, hindered access in both states, perhaps because other modalities were viewed as effective in treating at least the secondary drug.

After controlling for predisposing and need client characteristics, adding enabling factors dramatically improved the prediction of access in both states. Thus a client's means of accessing care are important determinants of access to MMT. This finding has systemic implications because these factors are more a function of state policies and provider practices than predisposing or need characteristics.

Access to MMT has remained extremely limited in Oregon counties with no methadone clinic, especially in the rural portions of the state. Compared to Oregon, MMT services were more limited in Washington. Several factors, including the limited availability of treatment slots, appear to have acted

as service delivery constraints, which in turn have resulted in lower access. Current work examines the influence of these factors on retention in MMT programs.

Limitations

Although the regression models from Oregon and Washington yielded surprisingly similar results, further work is needed to determine whether these findings generalize to other regions of the country. For example, in the northeastern states where heroin use is also high, differences in the financing of MMT, the geographic distribution of methadone clinics, the demographics of the population using opiates, and even the purity of street heroin could result in somewhat different findings.

The definition of access used in this study excluded adults who did not seek some form of publicly funded substance abuse treatment and those who may have been on a waiting list. Ultimately policy makers would be interested in access rates that included all needy individuals in the population.

The state treatment databases available for this study were a richer source of data on individuals at intake than were Medicaid claims and encounter databases. However, the findings of this study may still reflect as yet unmeasured individual or systemic factors. For example, good measures of systemic factors such as capacity do not exist.

Although attempts were made to develop equivalent predictor variables across states, some differences between the 2 models may have been related to differences in the reporting system used in each state. A comparison of state treatment data and a review of provider charts using a prospective sample of adults confirmed the general validity of these data for the purposes of this study. Medicaid identifiers were, however, missing for some adults believed to be Medicaid eligible. Thus the number of Medicaid-eligible adults admitted for opiate use was likely somewhat higher than reported here.

Implications for Behavioral Health Services

Creative strategies for serving areas with no methadone clinics are needed. Oregon and Washington have methadone clinics in only the 4 most populous counties, which is a major barrier to access for residents outside of the major metropolitan regions in both states. New administrative rules for opiate treatment (21 CFR Part 291, 42 CFR Part 8) allow more flexibility in provider practices (eg, offering take-home doses) that may benefit some rural residents. The anticipated approval of buprenorphine may promote new office-based strategies involving primary care physicians or public health clinics that could further benefit rural areas.²⁸

This study suggests that several groups appear to have particular difficulty accessing MMT. Examples of underserved groups that deserve more attention include the indigent (eg, homeless persons, individuals with no source of income), polydrug users, and those living in rural areas lacking methadone clinics. Long waiting lists have prompted Washington MMT providers to make difficult choices about the continuation of already scarce services and to administratively discharge about 60% of admissions for rule violations (eg, dirty urinalysis). Administratively discharged individuals must wait before they can regain access to MMT.

The findings of this study provide insights into some of the factors that can promote or hinder access to MMT. More can be done to expand access at both the state and provider levels. New models in development may address some of these issues.

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