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VA Primary Care–Mental Health Integration: Patient Characteristics and Receipt of Mental Health Services, 2008–2010

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Abstract

Objective—In 2007, the U.S. Department of Veterans Affairs (VA) health system began nationwide implementation of primary care–mental health integration (PC-MHI) programs to enhance mental health access and promote treatment of common mental health conditions for patients in primary care settings. This report describes patients initiating PC-MHI services in fiscal years (FYs) 2008–2010, including those who received prior mental health services.

Methods—Using VA administrative records, the investigators examined characteristics and services utilization of individuals who initiated PC-MHI services in FY 2008 (N=76,985), FY 2009 (N=107,417), or FY 2010 (N=149,938).

Results—PC-MHI service initiation increased by 95%, from 76,985 to 149,938 veterans. Over time, new user cohorts were increasingly younger, newer to VA services, and less likely to have received VA mental health treatment in the prior year.

Conclusions—This study documents substantial expansion in VA PC-MHI program activity. PC-MHI program expansion may increase access to mental health services in primary care settings.

The U.S. Department of Veterans Affairs (VA) health system began nationwide implementation of primary care–mental health integration (PC-MHI) programs in 2007, with many programs initiated in fiscal year (FY) 2008. The purpose of PC-MHI is to enhance access to mental health services and promote effective treatment of common mental health and substance use problems for patients treated in primary care settings (1). Programs were developed from evidence-based models (2–5). PC-MHI programs should include care management (6,7) and colocated collaborative care approaches (8). Care management

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includes systematic monitoring of patient treatment needs by a care manager (usually a nurse or social worker) who provides feedback to primary care physicians to meet patient mental health treatment needs (9). Colocated collaborative care involves mental health and primary care practitioners' being physically present in primary care settings with shared responsibility for evaluation, treatment, and monitoring of patient mental health conditions (9). PC-MHI programs are meant to address the needs of primary care patients, many of whom may have unmet mental health treatment needs and may be unwilling to receive treatment in specialty mental health clinics, and program implementation is associated with increased prevalence of mental health diagnoses among primary care patients (10,11).

Little is known regarding characteristics of patients who initiate PC-MHI services or who received prior mental health treatment. Examination of trends over time may inform assessments of program development and impact. As PC-MHI programs develop and expand, they may become more likely to provide services to individuals with no recent mental health treatment history. Alternatively, programs may represent an additional treatment setting for individuals receiving ongoing mental health treatment.

This report presents new information about first-time PC-MHI service users. We assessed and compared demographic characteristics and patients' receipt of mental health services within the previous 12 months of PC-MHI initiation, by year, for FY 2008 to FY 2010—the first three years of documented PC-MHI activity. Insights regarding the VA health system's unprecedented national implementation of PC-MHI may inform integrated care initiatives in other health systems.

Methods

Administrative data from the VA National Patient Care Database were used to identify all patients with documented initial outpatient PC-MHI service encounters in FYs 2008–2010. PC-MHI encounters were indicated by use of codes for individual outpatient and PC-MHI provider (codes 534 and 539, respectively), although method of care delivery (in person by providers or via telephone by care managers) was indistinguishable within the data.

Encounters in PC-MHI were initially documented in VA health system treatment records in FY 2008. The total number of VA patients with any documented PC-MHI service utilization represented 1.5% (N=76,985), 2.4% (N=125,892), and 3.4% (N=190,182) of VA users for FY 2008, FY 2009, and FY 2010, respectively. Study analyses were focused on unique first-time users of PC-MHI throughout FY 2008–FY 2010. Three cohorts were defined by year of initial PC-MHI encounter, with population sizes of $N_{FY\ 2008}$=76,985, $N_{FY\ 2009}$=107,417, and $N_{FY\ 2010}$=149,938 and no prior documented PC-MHI encounters.

Demographic characteristics included age (years), gender, race (white, black, other, or unknown), ethnicity (Hispanic or non-Hispanic), and marital status (married; separated, widowed, or divorced; never married; and unknown). The Charlson Comorbidity Index (12) was included to assess general medical comorbidities, with higher scores indicative of greater morbidity. Military service–connected disability status of at least 70% was assessed and may reflect access to care, illness severity, and affiliation with the VA health care

system (13). In addition, the site of service for the initial PC-MHI encounter was categorized as VA medical center (VAMC) or community-based outpatient clinic (CBOC). Because phone-based care management encounters may be attributed to the care manager's location rather than to where the patient typically receives services, the location of initial PC-MHI encounter was reclassified as the location (VAMC or CBOC) where the patient received the majority of prior care.

Inpatient and outpatient health services utilization in the prior 12 months, including patient receipt and frequency of primary care and mental health encounters, was examined. The number of encounters with psychiatric diagnoses was also assessed. Diagnoses were assessed from all VA outpatient and inpatient encounters in the prior 12 months, with *ICD-9-CM* diagnostic codes (14). Psychiatric conditions included any depression (including major depressive disorder [296.2 and 296.3] or other depression [293.83, 293.90, 296.99, 301.12, 298.0, 300.4, 309.0, 309.1, and 311]); posttraumatic stress disorder (PTSD; 309.81); any other anxiety disorder (300.00, 300.10, 300.0, and 300.2); alcohol abuse or dependence (303.00–303.03, 303.9, and 305.0); substance abuse or dependence (303–305, excluding 305.1); and serious mental illness, which included schizophrenia (295.0–295.9), bipolar disorder (296.0, 296.1, 296.4, and 296.6–296.8), and other psychoses (298, 297, and 296.9).

Differences across cohorts by fiscal year were evaluated with analysis of variance and chi square tests. All analyses were performed with SAS version 9.2. Significance was evaluated at α=.05. This study was conducted with institutional review board approval from the VA Ann Arbor Health System.

Results

The number of patients with initial PC-MHI encounters increased from 76,985 in FY 2008 (all PC-MHI users were new in FY 2008) to 107,417 in FY 2009 (85.5% of all PC-MHI users in FY 2009) and to 149,938 in FY 2010 (78.8% of all PC-MHI users in FY 2010) (Table 1). Between FY 2008 and FY 2010, new PC-MHI users tended to be slightly younger, female, nonwhite, nonmarried, and without substantial service-connected disability status. Between FY 2008 and FY 2010, the proportion of new PC-MHI recipients of age 18–44 increased from 23.5% to 27.6%, and the proportion age 45 and older decreased. The proportion of married PC-MHI users remained similar throughout the study period (from 44.7% to 44.3%) whereas separated, widowed, or divorced proportions decreased (from 32.6% to 29.4%) from FY 2008 to FY 2010. The proportion of users with a service-connected disability of at least 70% decreased from 22.5% in FY 2008 to 17.6% in FY 2010. Also, the proportion of initial PC-MHI encounters at VAMCs fell from 78.4% in FY 2008 to 69.4% in FY 2010, and the proportion that occurred within CBOCs significantly increased, from 7.7% in FY 2008 to 22.3% in FY 2010.

New PC-MHI patients in FY 2010 were less likely than new users to have recent primary care or VA health system encounters in FY 2008. In the 12 months prior to the initial PC-MHI visit, new users with at least one primary care visit declined from 83.2% in FY 2008 to 81.4% in FY 2010. Also, in the five years prior to patients' initial PC-MHI encounter,

14.6% of the FY 2008 cohort had not used VA services, which increased to 19.1% for the FY 2010 cohort.

Similar declines were observed in indicators of receipt of mental health treatment in the year preceding initiation of PC-MHI services. From FY 2008 to FY 2010, we observed declines in the proportion of individuals with any mental health service utilization within the past year (treatments or diagnoses), from 65.6% to 63.5%. Those with at least one mental health clinic visit in the prior year also declined, from 42.3% in FY 2008 to 37.2% in FY 2010. Further, whereas in FY 2008 36.5% of the PC-MHI initiators had received prior psychiatric diagnoses in specialty mental health clinics, this proportion decreased to 30.3% for the FY 2010 cohort.

With regard to psychiatric disorder prevalence, slight significant decreases were observed in the proportion of new users with any depression (from N=29,897, 38.8%, in FY 2008 to N=53,876, 35.9%, in FY 2010), anxiety disorders (not PTSD) (FY 2008, N=10,943, 14.2%; FY 2010, N=20,881, 13.9%), alcohol abuse or dependence (FY 2008, N=9,784, 12.7%; FY 2010, N=17,526, 11.7%), and substance abuse or dependence (FY 2008, N=12,315, 16.0%; FY 2010, N=22,630, 15.1%). However, the proportion of users with PTSD (FY 2008, N=13,572, 17.6%; FY 2010, N=26,540, 17.7%) or serious mental illness (9.1% in both FY 2008 (N=6,976) and FY 2010 (N=13,604) did not change significantly.

Discussion

The VA is engaged in the largest implementation of PC-MHI programs in the United States (1). This study examined characteristics of individuals with an initial documented PC-MHI encounter and assessed the extent to which PC-MHI service recipients received prior services, in particular mental health services or diagnoses.

The number of VA patients initiating PC-MHI services increased from 76,985 in FY 2008 to 149,938 in FY 2010, indicating considerable program expansion and enhanced services availability. Between FY 2008 and FY 2010, new program recipients became somewhat younger and less likely to have substantial military service–connected disabilities. The decrease in age and increase in the number of female PC-MHI users were consistent with trends over time within the VA, although the proportion of users who were white or who had a service-connected disability of 70% or higher in the VA increased from FY 2008 to FY 2010. Trends in PC-MHI initiation were consistent, with slight increases in specialty mental health service use among primary care patients within the VA. Further, they were less likely to have general medical comorbidities or recent diagnoses of depression, anxiety, or alcohol or substance abuse or dependence.

These findings suggest that as PC-MHI programs have expanded within the VA, they may be better able to provide services to individuals who have not already been identified as having mental health treatment needs. PC-MHI services may increasingly be offered to patients who are new to the VA health system or who have had a large gap in utilization of VA services, which may reflect increased access to PC-MHI services among patients who are new to the VA services—for example, those recently returned from the conflicts in

Afghanistan and Iraq who have substantial psychiatric morbidity (15). Indeed, the percentage of new PC-MHI patients who had not received any VA inpatient or outpatient services in the five years prior to their index encounter rose from 14.6% in FY 2008 to 19.1% in FY 2010. This finding suggests that PC-MHI programs are increasingly serving as a resource for mental health services for individuals entering the VA health system. Given elevated mental health needs observed among veterans of the conflicts in Afghanistan and Iraq, PC-MHI programs offer an important point of contact for returning veterans treated in primary care settings.

We observed small changes in the patterns of prior receipt of specialty mental health inpatient and outpatient services. The percentage of new PC-MHI patients with recent specialty mental health clinic visits fell from 42.3% to 37.2%. Of note, however, is that the patient population includes not only users new to the VA health system but also continuing users of the VA health system who are seeking mental health treatment services.

We note several limitations regarding this national descriptive analysis of VA health system administrative data. First, the indication of receipt of PC-MHI services was based solely on PC-MHI program-specific encounter indicators. These indicators were initiated at the start of FY 2008; however, utilization of these encounter indicators was not immediate at all sites. As a result, the number of PC-MHI users may be underestimated, particularly in the first year of the study. Further, some individuals with an initial documented PC-MHI encounter may actually have been ongoing PC-MHI service recipients. Also, some sites had developed integrated care programs prior to the national rollout of VA PC-MHI implementation activities and initiation of the program encounter code. Second, we note that the substantial changes observed in the characteristics of new PC-MHI users with regard to prior receipt of VA health services complicate the assessment of changes in receipt of specific services, notably mental health treatment. Finally, we note that PC-MHI program implementation was dynamic during the study period. Changes in the characteristics of individuals with initial documented PC-MHI encounters may reflect changes in the attributes of active PC-MHI programs over time as well as secular trends in the VA patient population and treatment patterns, including the increase in demobilization from FY 2008 to FY 2010, as well as general use of mental health services within the VA.

Conclusions

This report documents significant expansion in the number of VA patients receiving documented PC-MHI services for the first time and in the proportion of PC-MHI initiators relative to the overall VA primary care patient population. We observed important changes in demographic, clinical, and services utilization history of individuals entering PC-MHI services, and results indicate substantial increases in access to mental health services for VA patients served in primary care settings. Results suggest that PC-MHI programs serve patients with a wide spectrum of psychiatric disorders, and therefore training programs should adequately prepare PC-MHI providers to address the diverse evaluation and treatment needs. Further, the frequency of prior specialty mental health treatment among new PC-MHI users indicates additional coordination needs between PC-MHI providers and specialty mental health providers to ensure continuity of care. Future work is needed to

further assess PC-MHI implementation in the VA health system and the impact of specific program attributes on program utilization, costs, overall impact on mental health treatment access and quality, and patient outcomes.

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Table 1

Characteristics of and prior service utilization among veterans with initial primary care–mental health integration (PC-MHI) program encounters, fiscal years (FYs) 2008–2010

	FY 2008 (N=76,985)		FY 2009 (N=107,417)		FY 2010 (N=149,938)		
Characteristic	**N**	**%**	**N**	**%**	**N**	**%**	**p**
Age (M±SD)	54.6±15.5		53.9±15.7		53.3±15.7		<.01
Age group							<.01
18–44 years	18,111	23.5	27,950	26.0	41,402	27.6	
45–64 years	42,414	55.1	57,641	53.7	79,179	52.8	
≥65 years	16,460	21.4	21,826	20.3	29,357	19.6	
Gender							<.01
Female	7,302	9.5	10,616	9.9	15,465	10.3	
Male	69,683	90.5	96,801	90.1	134,473	89.7	
Race-ethnicity							<.01
White	52,569	68.3	72,405	67.4	100,317	66.9	
Black	13,590	17.7	19,380	18.0	27,117	18.1	
Other	2,259	2.9	3,093	2.9	4,760	3.2	
Unknown	8,567	11.1	12,539	11.7	17,744	11.8	
Hispanic	3,126	4.1	4,946	4.6	7,076	4.7	<.01
Marital status							<.01
Married	34,370	44.7	48,975	45.6	66,490	44.3	
Separated, widowed, or divorced	25,084	32.6	33,674	31.4	44,120	29.4	
Never married	15,718	20.4	22,303	20.8	30,530	20.4	
Unknown	1,813	2.4	2,465	2.3	8,798	5.9	
Charlson Comorbidity Index (continuous M±SD score)[a]	1.0±1.6		1.0±1.6		.9±1.6		<.01
Service-connected disability ≥70%	17,322	22.5	22,416	20.9	26,395	17.6	<.01
PC-MHI encounter location							<.01
Veterans Affairs medical center	60,323	78.4	76,690	71.4	104,023	69.4	
Community-based outpatient clinic	5,938	7.7	7,736	7.2	12,545	8.3	
Other location	10,724	13.9	22,991	21.4	33,370	22.3	
Health services utilization for the 12 months prior to first PC-MHI visit							
No Veterans Affairs health system use in previous 5 years	11,237	14.6	19,365	18.0	28,661	19.1	<.01
Any primary care visits	64,080	83.2	88,001	81.9	122,040	81.4	<.01
Any mental health clinic visits	32,573	42.3	41,640	38.8	55,779	37.2	<.01
Any mental health-associated hospitalizations	6,790	8.8	8,991	8.4	11,986	8.0	<.01
Mental health diagnoses or services utilization	50,515	65.6	68,892	64.1	95,209	63.5	<.01
Any visits with psychiatric diagnoses recorded	40,175	52.2	55,746	51.9	77,276	51.5	.01
Visits with psychiatric diagnoses recorded in specialty mental health clinics	28,059	36.5	34,238	31.9	45,401	30.3	<.01

[a] Possible scores range from 0 to 33, with higher scores indicating more comorbidities.