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Veterans Health Administration Investments In Primary Care And Mental Health Integration Improved Care Access

ABSTRACT Aiming to increase care access, the national Primary Care–Mental Health Integration (PC-MHI) initiative of the Veterans Health Administration (VHA) embedded specialists, care managers, or both in primary care clinics to collaboratively care for veterans with psychiatric illness. The initiative's effects on health care use and cost patterns were examined among 5.4 million primary care patients in 396 VHA clinics in 2013–16. The median rate of patients who saw a PC-MHI provider was 6.3 percent. Each percentage-point increase in the proportion of clinic patients seen by these providers was associated with 11 percent more mental health and 40 percent more primary care visits but also with 9 percent higher average total costs per patient per year. At the mean, 2.5 integrated care visits substituted for each specialty-based mental health visit that did not occur. PC-MHI was associated with improved access to outpatient care, albeit at increased total cost to the VHA. Successful implementation of integrated care necessitates significant investment and multidisciplinary partnership within health systems.

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Access to high-quality mental health services for patients followed in primary care settings has historically been suboptimal,[1] even though effective team-based treatments exist.[2] A recent multicenter study found that two-thirds of primary care patients with newly diagnosed depression remained untreated,[3] which indicates that a change in current care delivery paradigms is needed. Because many patients diagnosed with psychiatric illness are first identified in primary care, are reluctant to consult mental health specialists, or both,[4] there is a growing movement to offer integrated services where primary care providers, co-located mental health specialists, and care managers jointly treat patients in primary care.[5] More than seventy-nine randomized controlled trials support primary care and mental health specialties collaboratively caring for depression, anxiety,[2] and

other conditions (for example, substance use disorders).[6] Although it has been over twenty-five years since the first effectiveness study, collaborative care models remain challenging to disseminate and implement among health care systems.[7]

Since 2007 the Veterans Health Administration (VHA) has invested in Primary Care–Mental Health Integration (PC-MHI) among clinics nationwide.[8] The initiative aims to improve access to mental health services by embedding specialists, care managers, or both in primary care clinics to collaboratively care for veterans with psychiatric illness. PC-MHI includes essential collaborative care elements in that the models are team driven, population focused, measurement guided, and evidence based.[5] The VHA requires implementation of the program in all of its primary care clinics that care for 5,000 or more patients annually.[9] It provides national

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PC-MHI resources in the form of technical assistance, education, training, and designated tools for quality improvement (that is, program workload monitoring, mental health staffing data, and annual program implementation surveys).[8]

Separately, in 2010 the VHA adopted patient-centered medical homes (Patient Aligned Care Teams, or PACTs)[10] nationally, assigned each veteran to an interdisciplinary care team, and provided additional staffing and resources in primary care. Together, both the PC-MHI and PACT initiatives aim to deliver most mental health services directly in primary care settings to veterans with mild-to-moderate psychiatric illness. The initiatives target veterans with the mental health issues of depression, anxiety, and alcohol use disorder, but they may also address behavioral health issues (for example, chronic pain or sleep problems).[11] Primary care and PC-MHI providers aim to provide same-day personal introductions with patients. Alternative modes of communication include telephone calls between providers and between patients and providers; asynchronous (e-Consult) and instantaneous electronic communication between providers; and, more recently, synchronous video visits between patients and providers.[12]

Real-world implementation involves sacrificing some fidelity to collaborative care models studied in randomized clinical trials. For example, the VHA has permitted clinics to provide PC-MHI care by blending two evidence-based models: embedding mental health specialists in primary care teams to provide co-located, collaborative care; and having mental health–trained care managers provide evidence-based services, often over the telephone.[9] The specialists, often psychologists, deliver timely and brief (thirty-minute) assessments of or follow-up visits with primary care patients with psychiatric needs, provide problem-focused psychosocial treatments for various mental and behavioral health issues, and offer consultations to primary care providers on managing challenging patient behaviors.[13] The care managers, often registered nurses, also work alongside primary care providers to systematically monitor symptoms, treatment adherence, and medication side effects; provide decision support; educate and motivate patients; and assist in specialty-based mental health referrals.[14,15] PC-MHI care is first-line treatment on the spectrum of VHA mental health services available to veterans and may be escalated to specialty-based mental health care and inpatient treatment as needed.

Other large health care systems have tried to disseminate and implement integrated care models with mixed success. Integrating team-based care in 2010–13 in Intermountain Health-care at twenty-seven clinics was associated with higher rates of depression screening and lower rates of emergency visits, hospitalizations, and total costs among 113,452 patients, compared to rates at seventy-five clinics in the system that provided usual care.[16] The statewide Depression Improvement Across Minnesota: Offering a New Direction (DIAMOND) initiative in 2008–13 staggered collaborative care implementation in seventy-five clinics and found more depression care services and higher care satisfaction, but similar depression remission rates, among 1,578 patients after implementation.[17] A follow-up study found that the Minnesota program resulted in more episodes of treatment intensification but did not affect how often depression was diagnosed among 69,072 patients.[18] Both examples attest to the difficulties in reproducing trial results when scaling up and spreading complex, multifaceted interventions.

Because implementation of PC-MHI was simultaneous at all large primary care clinics in the VHA system and followed shortly by PACT implementation, it has been difficult to identify an equivalent comparison group to evaluate the effects of PC-MHI programs. Since PC-MHI's inception, many studies have attempted to evaluate program outcomes. In comparing clinics that fully implemented PC-MHI programs in the first year with those that did not, one study found no difference between the two groups in the rates of mental health visits and diagnoses.[19] Analyses that compared veterans who received PC-MHI services with those who did not have found that the former had a higher likelihood of completed referrals to specialty mental health care;[20] greater odds of obtaining psychiatric diagnoses[21] and treatment;[22] and a lower likelihood of emergency visits, hospitalization, or death.[23] To our knowledge, a national evaluation of both the PC-MHI and PACT initiatives and their combined effects on veterans' access to VHA health care services and associated costs does not yet exist.

In one VHA region we previously observed that veterans with psychiatric diagnoses treated within primary care clinics with greater proportions of patients in PC-MHI programs (that is, greater PC-MHI penetration) had more mental health visits (that is, greater mental health care access), compared to patients in clinics with lower PC-MHI penetration.[24] Furthermore, the PC-MHI initiative appeared to have shifted specialty-based mental health care to integrated primary care settings, with no apparent effect on costs.[25] In this current national study we sought to examine whether increased penetration of PC-MHI services in primary care clinics was associated with changes to health care use and total costs, while accounting for PACT implementation.

Study Data And Methods

STUDY DESIGN AND COHORT We performed a retrospective longitudinal cohort study of VHA primary care patients nationally for fiscal years 2014–16 (that is, from October 1, 2013, to September 30, 2016). Eligible patients were assigned to and received primary care services from any of 396 VHA clinics that were mandated to provide on-site integrated services through Primary Care–Mental Health Integration (of the clinics, 153 were hospital based, and 243 were community based). We separately examined data on 1.9 million patients who were not included in study regression analyses because they were assigned to one of the 649 small VHA clinic sites that were not required to provide PC-MHI services. Each patient's assigned home clinic was based on the location of their empaneled primary care provider, as determined by the VHA's Primary Care Panel Management. The final sample included 5,377,093 patients.

MEASURES

▶ **PRIMARY OUTCOMES:** Outpatient and inpatient VHA visits were measured as follows: all mental health care visits, including PC-MHI services in primary care; specialty-based mental health visits (for more details about VHA mental health visits in this study, see online appendix exhibit 1);[26] primary care visits; other non–mental health specialty visits; telephone visits; emergency visits; and hospitalizations. We used nationally designated electronic encounter codes from the VHA's Corporate Data Warehouse, which includes administrative and electronic health record data. To estimate total VHA health care costs, we multiplied health care use by unit cost estimates from the VHA's Decision Support System files. This activity-based costing method has been described in prior studies[27,28] and does not include fee-basis care from non-VHA providers that is paid for by the VHA. Primary outcomes were reported as relative measures of the effect of each percentage-point increase in clinic PC-MHI penetration on average numbers of health care visits and costs per person per year.

▶ **PRIMARY PREDICTOR:** Our main predictor was the PC-MHI penetration rate, which is a performance indicator of the PC-MHI's reach into a clinic's primary care patient population and is obtained from the VHA's Support Service Center. As previously described,[24,25] PC-MHI penetration is used as a proxy for clinic engagement in integrated care models and is defined as the proportion of assigned primary care patients who see a PC-MHI provider in each clinic annually. We dichotomized VHA clinics by whether they fell above or below the median PC-MHI penetration rate of 6.3 percent, labeling these respectively as having a "high" or a "low" penetration rate in descriptive analyses. We used clinic PC-MHI penetration rate as a continuous variable in regression analyses, hypothesizing that it may have a linear relationship with the outcome.

▶ **COVARIATES:** We examined utilization-related patient and clinic characteristics available in the Corporate Data Warehouse and other VHA files. Covariates included age, sex, race/ethnicity, marital status, health insurance, and income proxies (because patients may be eligible for VHA care on the basis of a service-connected disability or primary care copayment). The VHA's Planning Systems Support Group provided information on distance between patients' home addresses and their home clinics. For each study year we used *International Classification of Diseases,* Ninth Revision (ICD-9), and *International Statistical Classification of Diseases and Related Health Problems*, Tenth Revision (ICD-10), diagnostic codes found in records of outpatient and inpatient visits to adjust for each patient's psychiatric illnesses (that is, depression, anxiety, posttraumatic stress disorder, alcohol and substance use disorders, and serious mental illness [schizophrenia or bipolar disorder]) and homelessness status. We used Joshua Gagne and colleagues' comorbidity score, which combined conditions in the Charlson and Elixhauser measures, to predict patient mortality.[29] We calculated the comorbidity score, subdivided into three levels of severity, for each patient in each year. We examined two time-invariant clinic characteristics obtained from the National Patient Care Database and the Area Resource File: type (hospital versus community based) and location (rural versus nonrural). We approximated clinic size based on the number of assigned primary care patients per year. For each year we calculated each clinic's PACT Implementation Progress Index, which is an established measure of core PACT components (for example, access and care coordination) found to be associated with acute care use.[30]

ANALYSIS We used *t*-tests and chi-square tests to compare patient- and clinic-level characteristics in the baseline year (FY 2014) in clinics categorized as having high or low PC-MHI penetration rates. Further, we calculated mean numbers of health care visits and costs per patient in the baseline year and used *t*-tests to compare patients treated in the two categories of clinics. For reference, we also provided descriptive statistics for clinics without PC-MHI programs (which had no penetration rate available).

In multilevel analyses we estimated the effect of clinic PC-MHI penetration rate on patients' health care utilization outcomes after adjusting for year and clinic fixed effects, PACT imple-

mentation, and utilization-related patient characteristics. Then, we separately analyzed patients with depression, anxiety, or both ($n = 1,505,047$) and patients with bipolar disorder, schizophrenia, or both ($n = 226,970$) to see whether patients with PC-MHI-targeted conditions that possessed the strongest evidence base of collaborative care support experienced greater impacts. We included year and clinic fixed effects to account for secular trends and time-invariant clinic characteristics. We also included patient random effects, because of the presence of multiple nonindependent observations per patient over three years. Given the count distributions of our utilization outcomes, we used multilevel Poisson regressions in all adjusted models and reported incidence rate ratios and 95% confidence intervals. To account for the skewed distribution of health care costs in each year, we used log-transformed costs in our multilevel linear regression models and reported coefficients (or geometric average costs) and standard errors.

In sensitivity analyses we excluded patients who died during the study period and those who did not visit primary care in the baseline year (that is, we constructed a cohort of users of primary care in FY 2014 to follow over the three-year study period). In post hoc analyses we stratified analyses based on whether patients were treated at hospital- or community-based clinics. For all models, we determined significance by using a two-tailed α of 0.05 and analyzed data in SAS, version 9.4.

Evaluation efforts were part of an ongoing VHA quality improvement (nonresearch) effort and not subject to Institutional Review Board review.

LIMITATIONS While our study was conducted on a large national sample of VHA primary care patients, our methods had several potential limitations. First, the study did not include medical care received outside the VHA system. For example, we did not have data on emergency care provided at non-VHA facilities, where community-based primary care patients tend to receive treatment. Thus, we could not examine emergency visits as an outcome for our hospital-based primary care patients.

Second, our analyses did not control for several factors related to PC-MHI (for example, mental health care staffing), which could have affected health care use or cost and could be areas for future research.

Third, our VHA administrative data sources may be subject to coding inaccuracies because of the transition from ICD-9 to ICD-10 diagnostic codes, during which lower coding of certain mental health conditions (such as alcohol use

disorders) has been documented.[31]

Despite the study limitations, there remain valuable lessons from the VHA's decade-long experience with providing integrated care to veterans that can be shared with other accountable care organizations.

Study Results

With each percentage-point increase in Primary Care–Mental Health Integration penetration (for example, 1 percent versus 2 percent of primary care clinic patients cared for by a PC-MHI provider annually), a VHA clinic patient had an 11 percent increase in average total mental health visits (CI: 7, 16; $p < 0.001$) and a 9 percent increase in average total costs (standard error: 0.04; $p = 0.04$) per year, adjusting for year, clinic, and patient characteristics.

PATIENT CHARACTERISTICS There were significant baseline differences between patients of clinics with high versus low PC-MHI penetration rates, in terms of the proportion of patients with high-risk physical comorbidity (38 percent versus 22 percent, respectively) and living closer (14.9 versus 16.6 miles, respectively) to their assigned VHA clinic (exhibit 1). Other notable differences were not significant—for example, higher proportions of patients who were young, female, black, Hispanic, unmarried, or exempt from required copayment, or had a service-connected disability or a coexisting psychiatric illness.

CLINIC CHARACTERISTICS The median clinic PC-MHI penetration rate was 6.3 percent (interquartile range: 4.2–8.5), with a slight increase over three years. (See online appendix exhibit 2 for the distribution of clinic PC-MHI penetration rates by study year.)[26] Clinic type was the only characteristic in which the two groups of clinics differed significantly: 52 percent of the clinics with high rates and 38 percent of those with low rates were hospital based (chi square: 9.9; $p = 0.002$) (data not shown). This difference likely contributed to some observed patient-level differences (that is, "sicker" patients commonly receive hospital-based primary care). There was no significant correlation between a clinic's PC-MHI penetration rate and PACT Implementation Progress Index.

UNADJUSTED ANALYSES At baseline, compared to patients seen in clinics with low PC-MHI penetration rates, patients seen in clinics with high rates had significantly higher average rates of health care use (for example, 2.8 versus 3.3 average total mental health visits and 3.2 versus 3.4 average primary care visits per person per year) (exhibit 1). The exception was telephone visits, whose rates were similar in the two groups. We

calculated that average total costs were $658 higher per patient per year for those treated in a clinic with a high versus a low PC-MHI penetration rate. While patients in small clinics without PC-MHI programs had similar numbers of primary care visits, on average, they had fewer health care visits (for example, 1.8 average total mental health visits) and lower costs (an average of $2,039 lower than patients in clinics with high PC-MHI penetration rates) (data not shown).

ADJUSTED ANALYSES While each percentage-point increase in PC-MHI penetration was accompanied by an increase in total mental health visits, we observed a reduction in specialty-based mental health visits (IRR: 0.92) (exhibit 2). At the mean, 2.5 PC-MHI visits substituted for each specialty-based mental health visit that did not occur. Furthermore, increased clinic PC-MHI penetration was associated with greater average numbers of primary care (IRR: 1.40) and telephone visits (IRR: 1.77) per patient per year. There were no significant PC-MHI effects on other non–mental health specialty visits or hospitalizations.

ADDITIONAL ANALYSES Among patients with serious mental illness, increased PC-MHI penetration was associated with greater numbers of specialty-based mental health visits (IRR: 1.88; 95% confidence interval: 1.70, 2.07; $p < 0.001$) and all other health care visits (data not shown). Trends in health care use among patients with depression or anxiety largely mirrored the findings from our full cohort, with a few notable exceptions: There was a significant reduction in the numbers of other non–mental health specialty visits (IRR: 0.82; 95% CI: 0.72, 0.93; $p < 0.01$), a larger-magnitude increase in telephone visits (IRR: 4.83; 95% CI: 3.85, 6.06; $p < 0.001$), and a nonsignificant reduction in average total costs (β: −0.16; SE: 0.11; $p = 0.14$).

SENSITIVITY ANALYSES Sensitivity analyses excluded two subgroups of patients: those who died during the study period and those who did not have a primary care visit in 2014 (that is, we constructed a cohort that received primary care in FY 2014 to follow over three years). We found that these results were similar to those in the adjusted analyses. However, we noted that increased PC-MHI penetration was associated with reductions in other non–mental health specialty visits for both subgroups in the sensitivity analyses (for patients who did not die during the study period, IRR: 0.78; 95% CI: 0.74, 0.83; $p < 0.001$; and for the FY 2014 primary care cohort, IRR: 0.71; 95% CI: 0.67, 0.76; $p < 0.001$). We also observed associations with reductions in hospitalizations (IRR: 0.50; 95% CI: 0.42, 0.61; $p < 0.001$) and in total costs (β: −0.25; SE: 0.09; $p < 0.001$) for the FY 2014 primary care cohort.
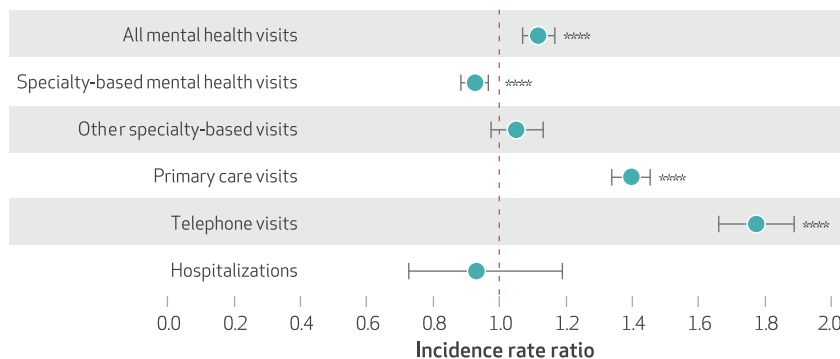
Veterans Health Administration (VHA) patient characteristics by clinic Primary Care–Mental Health Integration (PC-MHI) penetration rate during the baseline year (FY 2014)

	PC-MHI penetration rate	
Characteristic	**Low** (n = 1,990,984)	**High** (n = 2,400,164)
Age (years)		
18–44	15%	17%
45–54	11	13
55–64	20	22
65–74	29	28
75–84	15	13
85 or more	9	7
Female	7%	9%
Race/ethnicity		
White	73%	68%
Black	17	20
Hispanic	6	7
Other	3	4
Marital status		
Single	12%	14%
Married	55	52
Divorced, separated, or widowed	31	33
VHA health benefits copayments		
Exempt from copayments	20%	21%
Any copayment required	30	27
Missing data	49	52
Service-connected disability		
0%	51%	48%
1–50%	23	23
51–100%	27	29
Homeless	3%	3%
Gagne comorbidity score**		
Low risk (bottom 25%)	24%	15%
Intermediate risk (middle 25–75%)	54	47
High risk (top 25%)	22	38
Mental health diagnoses		
Any	29%	31%
Depression	16	18
Anxiety	7	8
Posttraumatic stress disorder	11	12
Substance abuse	10	11
Schizophrenia	1	2
Bipolar disorder	2	2
Average distance traveled to clinic****	16.6 miles	14.9 miles
Average VHA health care use		
All mental health care visits****	2.8	3.3
Specialty-based mental health visits****	2.7	3.0
Primary care visits****	3.2	3.4
Other non–mental health specialty visits****	1.0	1.1
Telephone visits	1.6	1.6
Emergency department visits****	0.3	0.4
Hospitalizations****	0.3	0.4
Average total cost****	$5,829	$6,487

SOURCE Authors' analysis of data for fiscal year 2014 from multiple VHA sources. **NOTES** Low penetration is below the median; high penetration is above the median. Differences between groups were tested for significance using chi-square tests of independence (for age; sex; race/ethnicity; marital status; VHA benefits copayment status; degree of service-connectedness; homelessness status; Gagne comorbidity score; and any mental health diagnosis, at the gross level and for each subcategory) or t-tests for independent samples (distance between patients' home addresses and their home clinics, categories of VHA health care use, and total cost). **$p < 0.05$ ****$p < 0.001$

Effect on Veterans Health Administration (VHA) health care utilization of each percentage-point increase in the proportion of primary care patients who received integrated mental health care, 2013–16

SOURCE Authors' analysis of data for 2013–16 from multiple VHA sources. **NOTES** The error bars indicate 95% confidence intervals. We conducted multilevel Poisson regressions that controlled for clinic Primary Care–Mental Health Integration (PC-MHI) penetration rate, year, clinic, patient-centered medical home or Patient Aligned Care Teams implementation, and patient characteristics (age, sex, race/ethnicity, marital status, income proxies [because patients may be eligible for VHA care on the basis of a service-connected disability or primary care copayment], Gagne comorbidity score, homelessness status, distance between patients' home addresses and their home clinics, and mental health diagnoses). The incidence rate ratios (IRRs) are interpreted as percentage changes in average health services use per person per year, relative to each percentage-point increase in clinic PC-MHI penetration (for example, a change from 1 percent to 2 percent of primary care clinic patients cared for by a PC-MHI provider annually). Thus, if the IRR is 1.11, a clinic patient had an 11 percent increase in average total mental health visits. ****$p < 0.001$

POST HOC ANALYSES Because we observed significant differences in PC-MHI penetration rates by clinic type, we conducted post hoc comparisons of utilization patterns between patients treated in hospital-based clinics and those treated in community-based clinics. Among the first group, increased PC-MHI penetration was associated with fewer emergency visits (IRR: 0.25; 95% CI: 0.20, 0.31; $p < 0.001$) per person per year. It was also associated with greater reliance on total mental health care (IRR: 1.08; 95% CI: 1.02, 1.11; $p = 0.01$) but lower reliance on primary care (IRR: 0.62; 95% CI: 0.59, 0.66; $p < 0.001$). Trends among patients treated in community-based clinics amplified the findings from our full cohort, in which increased PC-MHI penetration was associated with larger-magnitude increases in primary care (IRR: 2.73; 95% CI: 2.57, 2.90; $p < 0.001$) and telephone visits (IRR: 3.81; 95% CI: 3.04, 4.77; $p < 0.001$) and reductions in specialty-based mental health visits (IRR: 0.80; 95% CI: 0.75, 0.86; $p < 0.001$).

Discussion

Veterans treated in clinics with higher proportions of primary care patients seen by Primary Care–Mental Health Integration providers received more mental health care overall than those treated in clinics with lower PC-MHI pen-

etration, albeit at a higher total cost to the VHA. Patients with common (that is, depression or anxiety), often mild-to-moderate mental health conditions who were seen in clinics with higher PC-MHI penetration rates received more integrated mental health care and primary care visits compared to patients in clinics with lower PC-MHI penetration rates, while patients with serious mental illness had increased use of specialty-based mental health care. PC-MHI's goal was to increase mental health access for PACT or primary care patients, and our findings demonstrated that greater PC-MHI penetration rates were associated with improved access, measured as patients' use of a variety of outpatient services.

Increased patient services, however, can be costly to health care systems that invest in access to care as an intermediary to downstream health outcomes. For example, health care systems have invested in patient-centered medical homes, resulting in more primary care visits and costs.[32,33] While our study hinted at the potential for high-value care (for example, reductions in acute care use), the VHA's cost-capitated system incurred greater total costs for veterans seen at clinics with higher PC-MHI penetration rates, compared to those seen at clinics with lower rates. There may be unmeasured confounding factors from clinics with high rates disproportionately caring for "sicker" patients in hospital-based settings. Nevertheless, establishing PC-MHI programs likely revealed unmet needs among veterans, including untreated mental health problems, requests for assistance with behavior change, and a need for other preventive services such as mitigating suicide risk. Since the literature suggests that practice transformation is slow,[34] research may find that reductions in specialty-based mental health and acute care visits, more favorable downstream health outcomes, or both will eventually offset the short-term, direct costs associated with increased access to PC-MHI programs and primary care.

Consistent with collaborative care principles,[5] our findings also suggested a PC-MHI-associated shift from specialty-based mental health care (and from acute settings, in selected populations) to primary care–based integrated care. As intended, the PC-MHI and PACT initiatives together allowed veterans with the targeted conditions of depression and anxiety to receive short-term mental health services within primary care, thereby preserving access to traditional mental health services for people with serious chronic mental illness (that is, schizophrenia or bipolar disorder). The substitution rate of PC-MHI visits for specialty-based mental health visits, at the mean, was greater (2.5:1) in our study, which examined the entire primary care popula-

tion, than in a previous study that examined only the population with diagnosed psychiatric disorders (1.5:1).[25] This suggests that PC-MHI increased access not only for people whose mental and behavioral health needs were identified, but also for those who might not have realized that those needs existed. Substitution likely accounted for observed reductions in specialty-based mental health care over time, as noted in prior VHA studies.[27] It remains unclear whether our findings reflect a shift in resources from one setting to another based on intentional organizational redesign,[9] a reaction to mental health workforce shortages,[35] or a response to veterans' preferences.[36]

In addition, our study found low rates of and variation in PC-MHI penetration among VHA primary care clinics nationally, which illuminates ongoing dissemination and implementation efforts. Since approximately 30 percent of veterans have psychiatric diagnoses, one might expect more robustly implemented PC-MHI programs to care for more than 6.3 percent of primary care patients (the median) than less robustly implemented programs. While the optimal PC-MHI penetration rate is unknown, such numbers likely reflect where VHA leadership directs limited mental health staff and resources (to primary care versus specialty-based care) at any given time. Finally, we found differences in health care use between hospital- and community-based primary care clinics, which may reflect implementation barriers[37] that differentially affect clinic types (for example, low availability

of specialists in nonhospital settings), as highlighted in our prior study.[12] Variable clinic implementation could dilute expected improvements in mental health care quality associated with clinic PC-MHI penetration.[38] While some amount of clinic-level variation is to be expected, the VHA might consider examining whether PC-MHI models are achieving fundamental metrics that are strongly tied to patient outcomes.

The PC-MHI and PACT initiatives appear to have met their intended aim of expanding prompt access to evidence-based mental health care for primary care patients overall, notwithstanding a large financial investment. The goals of these national policies are aligned with the "prevention paradox"[39]—to achieve the greatest health benefits for the overall population, achieving small reductions in depressive symptoms among all patients is, at a minimum, as important as achieving larger reductions in those who are severely depressed. The VHA continues to be a pioneer in improving access to and quality of mental health services delivered to veterans.[40] Most recently, it implemented the largest standardization of suicide risk assessment for all primary care patients, in which PC-MHI plays a key role. After a decade of investment to integrate primary care and mental health, VHA dissemination and implementation efforts are still ongoing. To realize optimal health outcomes for the overall veteran population, continued multidisciplinary partnerships and innovation remain necessary in overcoming implementation barriers to practice integration. ∎

NOTES

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