Patient-Centered Medical Homes and Preventive Service Use

Joel F. Farley, PhD; Arun Kumar, PharmD, MS; Benjamin Y. Urick, PharmD, PhD; and Marisa E. Domino, PhD

Chronic disease management is a major challenge facing the US healthcare system.[1-4] The majority of chronic disease management occurs in the primary care setting, which provides an opportunity for preventive screening and treatment.[5] Identifying a provider or place as a usual source of care (USC) can improve preventive service use.[6] However, it is suggested that primary care management is best achieved when a USC provider delivers patient-centered care and assists in care coordination across providers.[7,8]

The patient-centered medical home (PCMH) emphasizes the role of a primary care provider in coordinating care across settings and services.[9] Under National Committee for Quality Assurance (NCQA) guidance, PCMH practices agree to adopt 6 key concepts: (1) emphasizing team-based care and practice organization, (2) knowing and managing patients through comprehensive data collection and sharing, (3) patient-centered access and continuity, (4) care management and support, (5) care coordination and care transitions, and (6) performance measurement and quality improvement.[10] These key concepts emphasize provider roles and responsibilities under the team-based care model, focus on longitudinal relationships between patients and providers, highlight the delivery of evidence-based screening as measures of performance, and provide data availability to providers to identify gaps in preventive screening. Therefore, the adoption of PCMH principles has the potential to contribute to better preventive care service delivery. A 2013 systematic review of 19 PCMH studies suggests improved patient care experiences and preventive service delivery.[11] A more recent systematic review of the PCMH literature in low-income patients showed improvements in clinical outcomes, increases in medication adherence, and lower emergency department (ED) utilization.[12]

Despite growing evidence of benefit, PCMH studies are primarily conducted as regional demonstrations. A notable exception is the Comprehensive Primary Care Plus program, which includes 2932 practices across 18 regions.[13] To our knowledge, only 1 study has examined PCMH benefits across a nationally representative population in the United States.[14] However, this study extrapolated the definition of a medical home practice and did not measure

ABSTRACT

OBJECTIVES: Despite data suggesting that patient-centered medical homes (PCMHs) improve preventive service use, limited nationally representative evidence exists. This study compared preventive service use between patients with and without a usual source of care (USC) and, of the patients with a USC, between those in practices with and without PCMH status.

STUDY DESIGN: This study used a cross-sectional study design.

METHODS: We constructed general and disease-specific preventive service indicators using the 2015 Medical Expenditure Panel Survey. Preventive service rates were compared between patients reporting a USC versus no USC and between patients whose USC practices were PCMH certified versus not PCMH certified. Unadjusted outcomes were tested using χ^2 tests. Multivariable logistic regression was used to test differences between groups, controlling for predisposing, enabling, and need variables.

RESULTS: Using multivariable logistic regression, respondents with a USC reported higher rates of screening for breast cancer (odds ratio [OR], 2.40; 95% CI, 1.81-3.17) and cervical cancer (OR, 1.99; 95% CI, 1.61-2.47) than respondents with no USC. Diabetes respondents with a USC had higher odds of an annual eye exam (OR, 2.05; 95% CI, 1.26-3.33) than respondents with no USC. Diabetes respondents with a USC that was PCMH certified reported higher rates of annual foot screenings (OR, 2.01; 95% CI, 1.31-3.08) and lower rates of annual cholesterol screenings (OR, 0.30; 95% CI, 0.11-0.83) than those with a USC that was not PCMH certified.

CONCLUSIONS: Having a USC was associated with higher rates of several preventive screening measures. However, there were fewer significant preventive screening relationships by PCMH status among individuals with a USC. Our results suggest that improving access to a USC may be as important as the application of PCMH principles to a USC practice.

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TAKEAWAY POINTS

Our study compared preventive service use between patients with and without a usual source of care (USC) and, of the patients with a USC, between those in practices with and without patient-centered medical home (PCMH) status, using the 2015 Medical Expenditure Panel Survey database.

› Patients with a USC had higher odds of receiving preventive services for cancer, diabetes, and asthma treatment than patients without a USC.

› Few differences were observed in the use of preventive services among patients with a USC that was certified as a PCMH in comparison with respondents with a USC not certified as a PCMH.

PCMH certification status directly. In addition, the majority of PCMH studies compare outcomes between patients enrolled or not enrolled in medical homes within a health system or health plan offering medical home services. This restricts the assessment of the potential benefit that the medical home model might have to patients who do not currently have a USC due to problems accessing insurance, financial constraints, or other burdens. The objective of this study is to compare the quality of preventive services provided to patients with and without an identified USC and to further determine whether USC practices with PCMH certification status improve the receipt of preventive services more than USC practices that are not PCMH certified in a broad representative sample of the US population.

METHODS

Study Design

This study uses a cross-sectional study design to compare receipt of preventive services in patients with no USC with that of patients with a USC that is either certified or not certified as a PCMH. Data were derived from the 2015 Medical Expenditure Panel Survey (MEPS), a national probability sample of the US civilian noninstitutionalized population.[15] This study used the household component, prescribed medicines, and medical condition files, as well as the newly released Medical Organizations Survey (MOS) files, from MEPS. The MOS was first fielded in 2015 to the subset of MEPS respondents reporting a USC.[16] The MOS collects information on organizational and financial characteristics of practices that respondents identified as their USC, including a question about the practice's PCMH certification status.

Population Inclusion/Exclusion

In 2015, MEPS data were collected on 35,427 respondents. We extracted cohorts of patients according to the age, gender, and condition criteria relevant to technical specifications of each quality metric. The sample size for each measure differed according to the measure's inclusion and exclusion criteria.

Variable Definitions

Primary predictor variables. We used the MEPS variable HAVEUS42, which ascertains whether there is a particular doctor's office, clinic, health center, or other place to which an individual goes if they are sick or need advice about health, to define USC status. Among respondents with a USC, the MEDHOME variable from the MEPS MOS was used to determine PCMH status.[17] Given the contingent questioning process for PCMH status, comparisons are made across 3 cohorts: (1) respondents with no USC, (2) respondents with a USC that is not PCMH certified, and (3) respondents with a USC that is PCMH certified (hereafter referred to as the no-USC, non-PCMH, and PCMH cohorts, respectively).

Outcome variables. Quality indicators were constructed according to guidance from the NCQA Healthcare Effectiveness Data and Information Set (HEDIS)[16] or the Pharmacy Quality Alliance (**Table 1**[17,18] and **eAppendix A** [eAppendices available at **ajmc.com**]).[18]

Preventive screening measures included receipt of cervical cancer screening over the prior 5 years among women aged 21 to 64 years and breast cancer screening over the prior 2 years among women aged 50 to 74 years. Colon cancer screening in male and female respondents aged 50 to 74 years was derived from MEPS questions pertaining to receipt of colonoscopy, fecal occult blood testing, or sigmoidoscopy. Inappropriate prostate cancer screening was defined for men 70 years or older reporting a prostate-specific antigen test.

We measured mental health follow-up after an emergency mental health encounter (either mental health–specific hospitalization or ED visit) as a visit to any provider or a mental health–specific provider in either the same or the following month. Although the official HEDIS definition measure limits 7- and 30-day follow-up to a mental health specialist only, we chose an inclusive measure of follow-up, given potential uncertainty in self-report of the exact date or type of provider seen.

Patients with coronary heart disease (CHD)—defined as the presence of CHD, angina, a prior myocardial infarction, or other heart disease—were measured for receipt of an annual cholesterol screen, aspirin use for CHD prevention, and statin medication use in the prior year. We used the diabetes care survey to define receipt of an annual foot screen, eye exam, cholesterol screen, glycated hemoglobin screen, and flu vaccination. We also examined the receipt of statins and angiotensin-converting enzyme inhibitors or angiotensin receptor blockers in patients with diabetes aged 40 to 75 years. Finally, 2 asthma-specific indicators were defined from the asthma-specific survey: asthma rescue inhaler overuse (filling 4 or more short-acting β-agonists over a 3-month period) and receipt of 1 or more preventive asthma medications.

Control variables. We used Andersen's Behavioral Model for Health Services Utilization[19] to group variables into predisposing, enabling, and need characteristics. Predisposing characteristics included respondents' age, gender, income, education, Census region of residence, and race/ethnicity. Enabling characteristics included the type of insurance coverage, categorized as public (eg, Medicare, Medicaid, and Affordable Care Act coverage), private (employer-based), and uninsured. We also measured whether a respondent ever delayed

or did not seek care because of cost concerns as an indicator of medical financial hardship. Need variables included indicators for priority medical conditions (depression, hypertension, hyperlipidemia, diabetes, asthma, and CHD) and a measure of comorbidity (sum of MEPS Clinical Classification Codes in 2015). Finally, we defined the presence of a functional limitation that disrupted activities of daily living (ADLs) and an indicator for self-report of poor or fair health.

Statistical Modeling

We present descriptive statistics for continuous variables using mean and SD and categorical variables using counts and percent estimates across the no-USC, non-PCMH, and PCMH cohorts. The MEPS weighting was applied to all statistical comparisons to allow nationally representative comparisons. Outcomes were compared across 2 cohorts. We first compared patients in the no-USC cohort with patients with a USC. The USC group contains patients whose USC practice was either PCMH certified or not. Among patients with a USC, we compared preventive screening across PCMH status. Unadjusted comparisons were made using χ^2 testing for categorical variables and t tests or analysis of variance for continuous variables. Finally, across the USC/no-USC cohorts and the PCMH/non-PCMH cohorts, we used multivariate logistic regression to test the significance of comparisons after controlling for the descriptive statistics described in the control variable section. All comparisons were deemed significant at an α of 0.05. All analyses were conducted using STATA-MP version 15.0 (StataCorp, LP; College Station, Texas).

RESULTS

We identified 7506 MEPS respondents with no USC (the no-USC cohort) and 26,512 patients with a USC. Among the USC population, 7974 respondents' practice sites completed the MOS to assess PCMH status (**eAppendix B**). Among the patients with a USC, we compared those whose USC practice completed the MOS with those whose USC practice did not complete the MOS (**eAppendix C**). These results suggest that patients with a USC whose practice completed the MOS were more often female, poor or low-income, white/non-Hispanic, and publicly

TABLE 1. Appropriate Care Outcome Definitions[17,18]

Variable	Application of Age, Condition, and MEPS Variables to Definition
Preventive Screening Measures	
Colonoscopy screen	Any respondent aged 50 to 75 years reporting a colonoscopy (CLNTST53) in past 10 years, fecal occult (BSTST53) in prior year, or sigmoidoscopy (SGMTST53) in prior 5 years[a]
Breast cancer screen	Female respondents aged 50 to 74 years reporting a mammogram in the past 2 years (MAMOGR53)[a]
Cervical cancer screen	Female respondents aged 21 to 64 years reporting a Pap smear (PAPSMR53) at any point in the prior 5 years[a]
Inappropriate PSA screen	Male respondents 70 years and older receiving a PSA screen after age 70 years (PSA53)[a]
Mental Health Follow-up Measure	
Timely follow-up after mental health event	Respondents 18 years and older with office-based visit the month of (current month), or month following (current or next month), a mental health–based hospital or ED visit (CCCODEX codes: 657 [mood], 651 [anxiety], 659 [psychosis/schizophrenia], 658 [personality disorder], 663 [mental health screen], or 670 [other mental health])[a]
CHD Measures	
CCCODEX 100 (myocardial infarction) or 101 (coronary atherosclerosis and other heart disease)	
Annual cholesterol screen	CHD respondents aged 18 to 75 years reporting a cholesterol screen in the past year (CHOLCK53)[a]
Aspirin use for CHD prevention	CHD respondents 45 years and older with ≥1 HEDIS risk factor reporting aspirin use in prior year; risk factors: hypertension (HIBPDX), high cholesterol (CHOLDX), or smoking (ADSMOK42)[a]
Statin use for CHD prevention	Male (21-75 years) and female (40-75 years) CHD respondents with ≥1 statin prescription in prescribed medicine file[a]
Diabetes Measures	
CCCODEX 049 (diabetes without complication) or 050 (diabetes with complication)	
Annual foot check	Diabetes respondents 18 years and older reporting foot check in 2015 diabetes care survey (DSFT1553)[a]
Annual eye exam	Diabetes respondents 18 years and older reporting dilated eye exam in 2015 diabetes care survey (DSEY1553)[a]
Annual flu vaccination	Diabetes respondents 18 years and older reporting flu vaccination in 2015 diabetes care survey (DSFL1553)[a]
Statin use for CHD prevention	Diabetes respondents aged 40 to 75 years with ≥1 statin prescription in 2015 prescribed medicine file[a,b]
Annual cholesterol screen	Diabetes respondents 18 years and older reporting a cholesterol screen (CHOLCK53) in 2015[a]
Diabetes A1C screening	Diabetes respondents 18 years and older reporting an A1C screen in 2015 diabetes care survey (DSA1C)[a]
ACE inhibitor/ ARB use	Diabetes respondents 18 years and older with hypertension (CCCODEX 098) using ≥1 ACE inhibitor or ARB in 2015 prescribed medicine file[a,b]
Asthma Measures	
CCCODEX 128 (asthma)	
Asthma rescue inhaler overuse	Any asthma respondent reporting ≥4 acute rescue inhaler fills over a 3-month period (ASMRCN53)[a]
Asthma prevention medication	Any asthma respondent reporting receiving a preventive asthma medication within the past year (ASPREV53)[a]

A1C indicates glycated hemoglobin; ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; CHD, coronary heart disease; ED, emergency department; HEDIS, Healthcare Effectiveness Data and Information Set; MEPS, Medical Expenditure Panel Survey; PSA, prostate-specific antigen.
[a]Measure derived from HEDIS.[17]
[b]Measure derived from Pharmacy Quality Alliance.[18]

TABLE 2. Descriptive Statistic Comparison by PCMH Status[a]

	No USC	USC/ Non-PCMH	USC/PCMH	
	Weighted N = 61,549,540	Weighted N = 44,663,574	Weighted N = 31,235,135	
	n = 7506	n = 4644	n = 3330	P[b]
Predisposing demographic variables				
Age in years, mean (SD)	36.31 (0.29)	40.29 (0.86)	38.80 (0.84)	<.001
Male gender	4206 (58.34%)	2026 (44.72%)	1388 (43.04%)	<.001
Income				
Poor (<100% FPL[c])	1746 (16.16%)	1133 (13.89%)	918 (15.65%)	
Near poor/low (100%-200% FPL[c])	1940 (21.36%)	995 (17.52%)	791 (18.76%)	.001
Middle or higher (>200% FPL[c])	3820 (62.48%)	2516 (68.59%)	1621 (65.59%)	
Education				
College graduate	1308 (24.57%)	737 (21.44%)	459 (20.16%)	
High school graduate/GED	3737 (52.30%)	1686 (40.00%)	1160 (39.66%)	<.001
Did not graduate high school	2220 (20.77%)	1580 (26.44%)	1216 (26.95%)	
Census region				
Northeast	857 (13.30%)	673 (16.42%)	584 (21.68%)	
Midwest	1074 (17.14%)	743 (18.52%)	758 (26.41%)	<.001
South	3454 (44.33%)	1936 (42.74%)	1139 (30.48%)	
West	2121 (25.23%)	1292 (22.33%)	849 (21.43%)	
Race/ethnicity				
White/non-Hispanic	2266 (52.22%)	1872 (64.10%)	1299 (64.99%)	
Black/non-Hispanic	1445 (14.09%)	768 (9.81%)	636 (10.65%)	<.001
Hispanic	3028 (24.25%)	1566 (17.97%)	1117 (16.87%)	
Other	767 (9.44%)	438 (8.11%)	278 (7.49%)	
Enabling variables				
Insurance coverage				
Publicly insured	1764 (18.29%)	2038 (30.25%)	1593 (33.19%)	
Privately insured	3583 (60.60%)	2407 (65.95%)	1571 (63.49%)	<.001
Uninsured	2159 (21.11%)	199 (3.81%)	166 (3.32%)	
Delayed or withheld care due to cost	202 (2.58%)	105 (2.34%)	94 (2.61%)	.8013
Need variables				
Comorbid conditions				
Depression/mood disorder	654 (10.89%)	843 (20.37%)	579 (22.11%)	<.001
Hypertension	538 (8.01%)	1348 (30.36%)	939 (29.58%)	<.001
Hyperlipidemia	322 (5.28%)	1067 (25.35%)	734 (24.91%)	<.001
Diabetes	223 (2.81%)	654 (13.59%)	419 (11.80%)	<.001
Asthma	217 (3.17%)	464 (8.83%)	329 (9.81%)	<.001
Coronary heart disease	74 (1.16%)	268 (6.50%)	162 (5.43%)	<.001
Count of conditions, mean (SD)	1.82 (0.05)	4.68 (0.09)	4.64 (0.10)	<.001
Limitation in activities of daily living	794 (12.28%)	1247 (27.19%)	821 (26.84%)	<.001
Self-reported poor/fair health status	1261 (13.69%)	1205 (22.28%)	869 (22.25%)	<.001

FPL indicates federal poverty limit; GED, general education diploma; PCMH, patient-centered medical home; USC, usual source of care.

[a]Values are number (weighted %), unless otherwise specified.

[b]Three-group comparisons across the no-USC, USC/PCMH, and USC/non-PCMH groups were made using analysis of variance for continuous outcomes and χ[2] tests for categorical outcomes.

[c]FPL refers to FPL guidelines as defined in the Medicare Expenditure Panel Survey.

insured, with higher rates of functional ADL limitations, poorer health, and more comorbid conditions. The USC cohort that completed the MOS included 4644 respondents with a USC that was not PCMH certified (the non-PCMH cohort) and 3330 respondents with a USC certified as a PCMH (the PCMH cohort).

Table 2 describes demographic comparisons between the 7506 patients with no USC and the USC respondents whose practices completed the MOS and were certified as non-PCMH or PCMH. Demographic comparisons between the no-USC cohort and the full USC cohort regardless of PCMH status are available in **eAppendix D**. Among predisposing variables, the no-USC cohort was younger than the non-PCMH and PCMH cohorts (mean ages, 36.31 vs 40.29 and 38.80 years, respectively; P <.001) and more likely to be male (58% vs 45% and 43%; P <.001), college educated (25% vs 21% and 20%; P <.001), and black/non-Hispanic (14% vs 10% and 11%; P <.001) or Hispanic (24% vs 18% and 17%; P <.001). The no-USC cohort also appeared less likely than the non-PCMH and PCMH cohorts to reside in middle- or upper-income brackets (62% vs 69% and 66%; P <.001). In regard to enabling variables, the no-USC cohort was more likely than the non-PCMH and PCMH groups to be uninsured (21% vs 4% and 3%, respectively; P <.001). Interestingly, despite the lower rates of insurance among the no-USC cohort, no difference existed across populations in the likelihood of delaying or withholding care due to cost. Among the potential need variables, the no-USC cohort had significantly lower mean counts of health conditions (1.82 vs 4.68 and 4.64; P <.001), less reporting of limitations in ADLs (12% vs 27% and 27%; P <.001), and less reporting of fair/poor health (14% vs 22% and 22%; P <.001) in comparison with respondents from the non-PCMH and PCMH cohorts.

Unadjusted comparisons between the no-USC cohort and the full USC cohort regardless of PCMH status are presented in **Table 3**. Compared with respondents with no USC, respondents with a USC were more likely to receive appropriate colonoscopy (4.7% vs 2.6%; P = .008) and breast cancer (81.5% vs 55.5%; P <.001) and cervical cancer (93.2% vs 85.6%; P <.001) screening, and they had higher rates of inappropriate prostate cancer screening in

TABLE 3. Unadjusted Comparisons by USC Status[a]

	No USC	USC	
	n (%)	n (%)	P[b]
Preventive service screening tests			
Colonoscopy screen	38 (2.60)	389 (4.65)	.008
Breast cancer screen	288 (55.45)	3116 (81.49)	<.001
Cervical cancer screen	1835 (85.58)	5529 (93.16)	<.001
Inappropriate prostate screen	38 (53.75)	745 (85.68)	<.001
Mental health follow-up			
Any provider follow-up after mental health event (current month)[3]	8 (30.30)	86 (63.57)	.008
Any provider follow-up after mental health event (next month)[4]	8 (31.21)	77 (60.33)	.023
Mental health follow-up after mental health event (current month)[3]	6 (22.58)	56 (46.60)	.059
Mental health follow-up after mental health event (next month)[4]	6 (23.25)	51 (44.50)	.103
CHD indicators			
Annual cholesterol screen	54 (93.61)	773 (96.40)	.295
Aspirin use for CHD prevention	13 (6.33)	227 (5.52)	.724
Statin use for CHD prevention	30 (64.44)	546 (74.90)	.199
Diabetes indicators			
Annual foot check	67 (58.42)	1110 (71.42)	.008
Annual eye exam	54 (42.78)	1020 (66.14)	<.001
Annual flu vaccination	49 (45.46)	991 (63.42)	.004
Statin use for CHD prevention	60 (47.42)	1165 (58.91)	.034
Annual cholesterol screen	160 (89.97)	2151 (96.67)	<.001
Annual A1C screening	72 (87.79)	1142 (93.32)	.040
ACE inhibitor/ARB use in diabetes	67 (74.85)	1187 (77.18)	.665
Asthma indicators			
Rescue inhaler overuse	21 (13.11)	202 (12.07)	.8156
Preventive medication prescribed	127 (32.54)	1071 (40.03)	.032

A1C indicates glycated hemoglobin; ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; CHD, coronary heart disease; ED, emergency department; USC, usual source of care.

[a]Includes all patients reporting having a USC regardless of whether that USC completed the Medical Organization Survey or not and regardless of whether that USC was recognized as a patient-centered medical home.

[b]Comparisons made using χ^2 tests.

[c]Current month refers to a follow-up within the current month of an inpatient or ED visit.

[d]Next month refers to a follow-up within the current or next month of an inpatient or ED visit.

TABLE 4. Unadjusted Comparisons by PCMH Certification[a]

	USC Not PCMH Certified	USC PCMH Certified	
	n (%)	n (%)	P[b]
Preventive service screening tests			
Colonoscopy screen	77 (3.95)	40 (3.94)	.995
Breast cancer screen	638 (83.01)	477 (85.14)	.408
Cervical cancer screen	897 (92.04)	751 (93.76)	.258
Inappropriate prostate screen	187 (83.38)	85 (90.29)	.134
Mental health follow-up			
Any provider follow-up after mental health event (current month)[c]	20 (65.40)	14 (79.61)	.364
Any provider follow-up after mental health event (next month)[d]	19 (65.08)	10 (76.80)	.468
Mental health follow-up after mental health event (current month)[c]	11 (47.06)	10 (64.15)	.399
Mental health follow-up after mental health event (next month)[d]	11 (47.49)	7 (60.94)	.528
CHD indicators			
Annual cholesterol screen	183 (98.76)	116 (97.95)	.638
Aspirin use for CHD prevention	59 (7.68)	35 (4.84)	.119
Statin use for CHD prevention	131 (75.52)	85 (80.13)	.470
Diabetes indicators			
Annual foot check	256 (65.66)	198 (77.51)	.004
Annual eye exam	242 (62.52)	182 (68.50)	.147
Annual flu vaccination	263 (68.79)	159 (61.56)	.112
Statin use for CHD prevention	290 (62.36)	185 (62.41)	.992
Annual cholesterol screen	509 (98.03)	327 (93.43)	.019
Annual A1C screening	303 (96.65)	183 (92.87)	.066
ACE inhibitor/ARB use in diabetes	286 (78.38)	201 (81.26)	.477
Asthma indicators			
Rescue inhaler overuse	48 (15.96)	37 (15.68)	.880
Preventive medication prescribed	198 (36.01)	172 (42.35)	.241

A1C indicates glycated hemoglobin; ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; CHD, coronary heart disease; ED, emergency department; PCMH, patient-centered medical home; USC, usual source of care.

[a]Includes only patients reporting having a USC whose practice completed the Medical Organization Survey and identified as being a PCMH or not being a PCMH.

[b]Comparisons made using χ^2 tests.

[c]Current month refers to a follow-up within the current month of an inpatient or ED visit.

[d]Next month refers to a follow-up within the current or next month of an inpatient or ED visit.

men 70 years and older (85.7% vs 53.8%; P <.001). After an inpatient or ED-related mental health event, respondents with a USC were more likely than respondents with no USC to see any office-based provider in the month of (63.6% vs 30.3%; P = .008) and the month following (60.3% vs 31.2%; P = .023) the event. The same trends held, but were not significant, when examining follow-up to a mental health provider. Mental health outcomes should be treated as exploratory in this study, given limited sample sizes. Among the cohort of respondents with CHD, no statistical difference existed in outcomes between patients with or without a USC. However, respondents with diabetes and a USC had higher annual rates of foot screening than respondents with diabetes and no USC (71.4% vs 58.4%; P = .008). Finally, comparing respondents with asthma and a USC to respondents with asthma and no USC, we found no difference in rescue inhaler overuse but higher rates of preventive asthma medication (40.0% vs 32.5%; P = .032).

Among respondents with a USC, there were few differences in outcomes across the PCMH and non-PCMH groups (**Table 4**).

TABLE 5. Multivariate Logistic Regression Models Comparing Preventive Service Use Across USC Status and PCMH Status[a]

	USC vs No USC		PCMH vs Non-PCMH	
	Odds Ratio (95% CI)	*P*	Odds Ratio (95% CI)	*P*
Preventive service screening tests				
Colonoscopy screen	1.25 (0.77-2.04)	.371	1.08 (0.65-1.81)	.767
Breast cancer screen	2.40 (1.81-3.17)	<.001	1.12 (0.74-1.70)	.599
Cervical cancer screen	1.99 (1.61-2.47)	<.001	1.29 (0.82-2.03)	.268
Inappropriate prostate screen	3.88 (2.05-7.32)	<.001	1.61 (0.65-3.95)	.299
Mental health follow-up				
Any provider follow-up after mental health event (current month)[b]	4.17 (1.01-17.24)	.049	1.10 (0.01-232.86)	.971
Any provider follow-up after mental health event (next month)[c]	3.61 (0.94-13.86)	.061	1.02 (0.01-195.42)	.993
Mental health follow-up after mental health event (current month)[b]	3.96 (1.25-12.60)	.020	0.09 (0.01-0.99)	.049
Mental health follow-up after mental health event (next month)[c]	3.35 (1.05-10.63)	.040	0.03 (0.00-1.20)	.062
CHD indicators				
Annual cholesterol screen	0.96 (0.28-3.35)	.954	0.10 (0.01-1.07)	.057
Aspirin use for CHD prevention	0.64 (0.26-1.54)	.315	0.55 (0.28-1.07)	.078
Statin use for CHD prevention	1.05 (0.45-2.46)	.918	1.27 (0.53-3.04)	.591
Diabetes indicators				
Annual foot check	1.51 (0.98-2.32)	.064	2.01 (1.31-3.08)	.002
Annual eye exam	2.05 (1.26-3.33)	.004	1.43 (0.98-2.11)	.066
Annual flu vaccination	1.64 (0.91-2.94)	.100	0.88 (0.58-1.32)	.533
Statin use for CHD prevention	1.24 (0.78-1.96)	.363	1.05 (0.68-1.62)	.822
Annual cholesterol screen	2.10 (0.81-5.42)	.124	0.30 (0.11-0.83)	.020
Annual A1C screening	1.26 (0.62-2.57)	.515	0.42 (0.17-1.05)	.065
ACE inhibitor/ARB use in diabetes	1.12 (0.64-1.97)	.695	1.15 (0.69-1.92)	.597
Asthma indicators				
Rescue inhaler overuse	0.88 (0.43-1.80)	.729	1.15 (0.61-2.16)	.663
Preventive medication prescribed	0.97 (0.71-1.33)	.846	1.33 (0.94-1.89)	.052

A1C indicates glycated hemoglobin; ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; CHD, coronary heart disease; ED, emergency department; PCMH, patient-centered medical home; USC, usual source of care.

[a]Models control for age, gender, income, education, Census region, race, insurance status, difficulty affording medical care, presence of chronic condition (depression, diabetes, hypertension, asthma, hyperlipidemia, CHD), limitations in activities of daily living, number of chronic conditions, and self-reported health status.

[b]Current month refers to a follow-up within the current month of an inpatient or ED visit.

[c]Next month refers to a follow-up within the current or next month of an inpatient or ED visit.

Rates of preventive screening for cancer were very similar across groups. Similar rates were also seen for mental health follow-up and the 3 CHD variables. PCMH respondents with diabetes were significantly more likely to report having an annual foot check (77.5% vs 65.7%; *P* = .004) but were slightly less likely to report having an annual cholesterol screen (93.4% vs 98.0%; *P* = .0187). No significant differences existed between respondents in the non-PCMH cohort and the PCMH cohort in any of the asthma quality indicators of interest. Again, the ability to measure mental health follow-up in this population was limited, given small sample sizes.

Controlling for predisposing, enabling, and need variables using logistic regression, we continued to see significant differences in cancer screening between patients with and without a USC (**Table 5**). In patients with a USC, we found higher odds of screening for breast cancer (odds ratio [OR], 2.40; 95% CI, 1.81-3.17; *P* <.001] and cervical cancer (OR, 1.99; 95% CI, 1.61-2.47; *P* <.001), as well as higher odds of inappropriate screening for prostate cancer in men 70 years and older (OR, 3.88; 95% CI, 2.05-7.32; *P* <.001). Similar trends in the diabetes screening indicators were also noted. However, with the exception of higher odds of receiving an annual eye exam for retinopathy (OR, 2.05; 95% CI, 1.26-3.33; *P* = .004), the odds no longer reached statistical significance. USC respondents with diabetes whose practices were PCMH certified had higher odds of receiving an annual foot check (OR, 2.01; 95% CI, 1.31-3.08; *P* = .002) but lower odds of having annual cholesterol screening (OR, 0.30; 95% CI, 0.11-0.83; *P* = .020) than those frequenting practices that were not PCMH certified.

DISCUSSION

Patients with a USC had higher odds of receiving preventive cancer screening services than patients without a USC, even after controlling for predisposing, enabling, and need variables. Similar relationships were found for preventive service use for asthma treatments and diabetes. However, we found few differences in the odds of using preventive services among patients with a USC recognized as a PCMH compared with those that were not PCMH certified.

It is interesting to note that the population of respondents with a USC in our study had much higher "need" for healthcare services, as reflected in higher rates of chronic conditions such as hypertension, depression, diabetes, asthma, and CHD. USC respondents also had more frequent limitations in their ADLs and poorer self-reported health status. This relationship held regardless of whether or not the USC was certified as a PCMH practice. It is perhaps not surprising that respondents with existing chronic health conditions had greater odds than patients without health problems of reporting that they have a USC they can rely on to access services. The care needed to manage existing health problems is an entryway into the healthcare system and may serve as a conduit for patients to build a relationship with a provider or practice. However, access to care is important not

only for managing existing health problems, but also for disease prevention. Our results suggest that not having a USC is associated with less preventive screening.

It is interesting to note that in addition to higher receipt of preventive services among patients with a USC, we also found higher odds of inappropriate prostate cancer screening in men 70 years and older. Having a USC is typically an indicator that individuals have better access to medical services. In addition to the benefits this might have in terms of improving preventive services, having a USC may also be an entry point to potentially inappropriate care in patients. It should be noted, however, that the inappropriate prostate screening measure is a new HEDIS guideline implemented in 2015 to reflect improved cancer screening guidelines and may take time to diffuse.[17]

Although, in general, PCMH practices had better odds of care delivery for the quality metrics selected in our study compared with non-PCMH practices, these results were neither clinically meaningful nor statistically significant. We should note that we did not have the ability to examine the individual practices that comprised the PCMH cohort, and there is evidence that practices vary in their adoption of the 6 core PCMH principles.[11] One might expect that PCMH practices that incorporate and adhere more to these principles would be better positioned to improve care outcomes. Future research should consider which components of PCMH practice lead to better delivery of care.

Limitations

As with any observational study, this study is subject to a number of limitations that should be considered when interpreting our results. This study relied on a cross-sectional survey of respondents and cannot establish temporality between relationships, given that data were collected on the exposure and the outcome during the same survey. One advantage of MEPS is the availability of rich patient demographic information, such as race, income, and education. Although we controlled for many variables that might confound the relationship between enrollment status and outcomes, the possibility for unmeasured confounding always exists. One specific source of confounding that we were unable to observe in this study is the general willingness of patients to receive preventive services. Patients with a greater understanding of the importance of and need for preventive screening are more likely to seek out a USC, which may lead them to receive these services at higher rates. Finally, the mental health follow-up variables had limited sample size in our data and the relationships should be treated as exploratory.

CONCLUSIONS

This study is the first to our knowledge to differentiate the effect of having a USC from the influence of whether or not a USC is PCMH certified on preventive service use among a nationally representative population of patients. Although evidence is growing that the

PCMH model improves patient care, these benefits are not available to patients who cannot access the health system or do not have a USC provider. Efforts to improve access to a USC should not be forgotten in the push toward the adoption of PCMH principles. ∎

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eAppendix A. Full Description of Outcome Variable Definitions

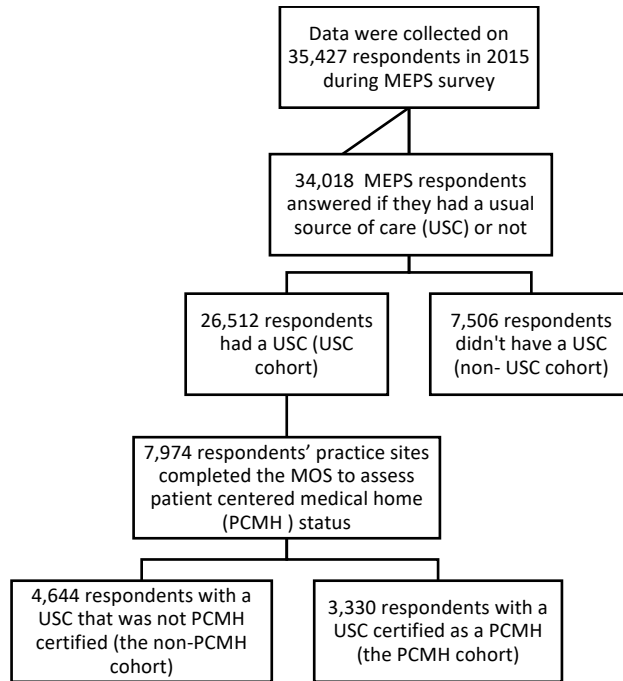| Variable	Cohort	Age	Official performance definition	Definition Source	Applied definition in MEPS for current study
Preventative Screening Metrics					
Colonoscopy screen	All respondents ages 50-75	50-75	Colonoscopy within past 10 years or fecal occult within past year or sigmoidoscopy within last 5 years	HEDIS	Respondent report of a colonoscopy (CLNTST53) in past 10 years, fecal occult (BSTST53) in prior year, or sigmoidoscopy (SGMTST53) in prior 5 years
Breast cancer screen	Female respondents	50-74	Mammogram within past 2 years excluding respondents with double mastectomy.	HEDIS	Respondent report of a mammogram in the past two years (MAMOGR53). Unable to accurately code wither respondent has had a double mastectomy so this measure applied to all women 50-74.
Cervical cancer screen	Female respondents	21-64	Cervical cancer screening: Pap smear in last 3 years or pap smear and HPV test in last 5 years	HEDIS	Unable to differentiate receipt of HPV testing over a 5-year period. This was coded conservatively as any report of having a pap smear (PAPSMR53) at any point in the prior 5 years.
Inappropriate Prostate Specific Antigen Screen	Male respondents	70+	Presence of a PSA screen in men 70 and older	HEDIS	Any receipt of a PSA screen among respondents 70 and older (PSA53)
Mental Health Quality Metrics					
Mental health follow up after mental health hospitalization or ER visit	Respondents with mental health specific hospital/ER encounter	18+	Outpatient mental health follow up within 7 and 30 days of a mental health specific hospitalization or emergency department visit	HEDIS	Any office based visit the month of, or month following, a mental health based hospital or ER visit that either involved a psychiatrist or was to any other provider for a mental health specific reason [CCODEX codes: 657 (mood), 651 (anxiety), psychosis/schizophrenia (659), personality disorder (658), mental health

					screen (663), or other mental health condition (670)].
Coronary Heart Disease Quality Metrics					
Annual cholesterol screen	CHD cohort	18-75	Cholesterol check in past year	HEDIS	Respondent report of a cholesterol screen (CHOLCK53) among people with confirmed CHD [CCODEX = 100 (Myocardial infarction) or 101 (coronary atherosclerosis and other heart disease)]
Aspirin use for CHD prevention	CHD Prevention Cohort	46-79 depending on sex and CVD risk	Proportion of CVD risk patients using daily aspirin Men 46-65 with 1+ CVD risk or 66-79 regardless of risk Women 56-79 with 2+ risks	HEDIS	HEDIS risk factors included patient report of hypertension (HIBPDX), high cholesterol (CHOLDX), smoking (ADSMOK42), and parental history of heart attack prior to age 60 which was not available and therefore not accounted for. Given uncertainty about frequency of aspirin consumption, aspirin use was coded if ever used
Statin use for CHD prevention	CHD cohort	Men 21-75 Women 40-75	Receipt of at least one high or moderate-intensity statin therapy in people with atherosclerotic cardiovascular disease.	HEDIS	Presence of one or more statin prescriptions in the 3 interview rounds of 2015 with presence of coronary artery disease [CCODEX = 100 (Myocardial infarction) or 101 (coronary atherosclerosis and other heart disease)]
Diabetes Quality Metrics					
Annual foot check	Diabetes cohort	18+	Annual foot check in people with diabetes	HEDIS	Respondent report of foot check in 2015 as part of the diabetes care survey (DSFT1553)
Annual eye exam	Diabetes cohort	18+	Annual retinal eye exam in people with diabetes	HEDIS	Respondent report of dilated eye exam in 2015 as part of the diabetes care survey (DSEY1553)
Annual flu vaccination	Diabetes cohort	18+	Annual flu vaccination in people with diabetes	HEDIS	Respondent report of flu vaccination receipt as part of the diabetes care survey (DSFL1553)

Statin use for CHD prevention in diabetes	Diabetes cohort	40-75	Receipt of at least one statin of any intensity in people with diabetes	HEDIS/ PQA	One or more statins in the 3 interview rounds of 2015 with presence of diabetes CCODEX = 049 (without) and 050 (with) complications
Annual cholesterol screen	Diabetes cohort	18-75	Cholesterol check in past year	HEDIS (retired)	Respondent report of a cholesterol screen (CHOLCK53) among people with diabetes CCODEX = 049 (without) and 050 (with) complications
Diabetes HbA1c screening	Diabetes cohort	18+	HbA1c Test in the measurement year	HEDIS	Respondent report of an HbA1c screen (DSA1C) as part of the diabetes care survey
ACE/ARB use in diabetes	Diabetes cohort	18 -75	The proportion of patients receiving a medication for hypertension and diabetes receiving an ACE inhibitor or Angiotensin Receptor Blocker	HEDIS/PQA (expired 2014)	One or more ACE-Inhibitor or Angiotensin Receptor Blocker filled in the 3 interview rounds of 2015 with presence of diabetes CCODEX = 049 and hypertension CCODEX = 098
Asthma Quality Metrics					
Asthma rescue inhaler overuse	Asthma Cohort	18+	The proportion of patients obtaining 4 or more rescue inhalers over a 3 month period	HEDIS (retired)	Respondent indicated receiving more than 3 acute rescue inhalers over the last 3 months (ASMRCN53)
Asthma prevention medication	Asthma Cohort	18+	The proportion of patients with severe persistent asthma receiving preventative treatment	HEDIS (retired)	Respondent indicated receiving a preventative asthma medication by their doctor at any point over the prior year (ASPREV53)
Additional Quality Metrics with Insufficient Sample Size for Study Inclusion					
Systemic oral corticosteroid use following	COPD cohort	40+	Systemic corticosteroid dispensed within 14 days	HEDIS	Given concerns about coding of exact dates of medication fills, we considered any systemic corticosteroid prescription in the

COPD related hospital or ER encounter			of inpatient or ER visit for COPD		interview round in which a COPD specific hospital or ER encounter occurred as presence of COPD management with corticosteroids.
Inappropriate antipsychotic use in dementia	Dementia cohort 50 and older	50+	Antipsychotic prescribed in presence of delirium, dementia, and amnestic or other cognitive disorder	PQA	Presence of delirium and/or dementia (CCCODEX = 653) and any antipsychotic prescription history in interview round from 2015

- PQA = Pharmacy Quality Alliance Endorsed measure. http://pqaalliance.org/measures/default.asp
- HEDIS = Healthcare Effectiveness Data and Information Set. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/Downloads/2017_QRS-Measure_Technical_Specifications.pdf
- ICSI = Institute for Clinical Systems Improvement measure. https://www.icsi.org/guidelines__more/find_guidelines/

eAppendix B. Flow Chart Describing Selection of Comparison Groups for Analysis

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                    ┌─────────────────────────┐
                    │   Data were collected on │
                    │ 35,427 respondents in 2015│
                    │    during MEPS survey    │
                    └─────────────────────────┘
                                 │
                    ┌─────────────────────────┐
                    │  34,018  MEPS respondents │
                    │ answered if they had a usual│
                    │  source of care (USC) or not│
                    └─────────────────────────┘
                         │              │
          ┌──────────────────┐   ┌──────────────────┐
          │ 26,512 respondents│   │ 7,506 respondents │
          │  had a USC (USC   │   │ didn't have a USC │
          │     cohort)       │   │  (non- USC cohort)│
          └──────────────────┘   └──────────────────┘
                    │
      ┌───────────────────────────────┐
      │ 7,974 respondents' practice sites│
      │  completed the MOS to assess   │
      │ patient centered medical home  │
      │        (PCMH ) status          │
      └───────────────────────────────┘
              │                    │
  ┌────────────────────┐   ┌────────────────────┐
  │ 4,644 respondents with a│   │ 3,330 respondents with a│
  │ USC that was not PCMH │   │ USC certified as a PCMH│
  │ certified (the non-PCMH│   │   (the PCMH cohort)   │
  │      cohort)          │   └────────────────────┘
  └────────────────────┘
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eAppendix C. Descriptive Statistic Comparison between Patients with a USC whose Practice Did or Did Not Complete the Medical Organization Survey (MOS)

	MOS Completed	MOS Not Completed	p-value
	Wt. N = 75,898,710	Wt. N = 174,622,325	
	n = 7,974 (n, weighted %)	n = 18,538 (n, weighted %)	
Predisposing Demographic Variables			
Mean Age (SD)	39.68 (0.65)	38.68 (0.35)	0.107
Male Gender	3,414 (44.0%)	8,723 (47.8%)	<0.001
Income			
Poor (<100% FPL)	2,051 (14.6%)	3,850 (12.0%)	
Near Poor/Low (100-200% FPL)	1,786 (18.0%)	4,111 (16.9%)	
Middle or higher (>200% FPL)	4,137 (67.4%)	10,577 (71.1%)	<0.001
Education			
College Graduate	1,196 (20.9%)	3,197 (23.4%)	
High School graduate/GRE	2,846 (39.9%)	7,165 (41.6%)	
Did not graduate high school	2,796 (26.7%)	6,459 (27.2%)	0.051
Census Region			
Northeast	1,257 (18.6%)	2,989 (18.6%)	
Midwest	1,501 (21.8%)	3,741 (22.5%)	
South	3,075 (37.7%)	6,557 (35.1%)	
West	2,141 (22.0%)	5,251 (23.8%)	0.397
Race/Ethnicity			
White/Non-Hispanic	3,171 (64.5%)	7,226 (61.7%)	
Black/Non-Hispanic	1,404 (10.2%)	3,726 (12.5%)	
Hispanic	2,683 (17.5%)	5,405 (15.7%)	
Other	716 (7.9%)	2,181 (10.2%)	<0.001
Enabling Variables			
Insurance Coverage			
Publicly Insured	3,631 (31.5%)	6,562 (24.4%)	
Privately Insured	3,978 (64.9%)	10,626 (70.5%)	
Uninsured	365 (3.6%)	1,350 (5.1%)	<0.001
Delayed or withheld care due to cost	199 (2.5%)	334 (1.9%)	0.027
Need Variables			
Comorbid Conditions			
Depression/Mood Disorder	1,422 (21.1%)	2,573 (16.5%)	<0.001
Hypertension (HTN)	2,287 (30.0%)	3,781 (22.4%)	<0.001
Hyperlipidemia (HLP)	1,801 (25.2%)	2,858 (17.9%)	<0.001
Diabetes	1,073 (12.9%)	1,674 (8.8%)	<0.001

Asthma	793 (9.2%)	1,316 (7.2%)	<0.001
Coronary Heart Disease	430 (6.1%)	734 (4.6%)	<0.001
Mean Count of Conditions (SD)	4.66 (0.07)	3.47 (0.04)	<0.001
Limitation in Activity of Daily Living	2,068 (27.1%)	3,624 (20.8%)	<0.001
Self-Reported Poor/Fair Health Status	2,074 (22.3%)	3,527 (16.8%)	<0.001

*Includes all patients reporting having a USC regardless of whether that USC completed the Medical Organization Survey or not and regardless of whether that USC was recognized as a Patient-Centered Medical Home

eAppendix D. Descriptive Statistic Comparison between Full Usual Source of Care Cohorts

	No Usual Source of Care (USC)	Has Usual Source of Care	p-value
	Wt. N = 61,549,540	Wt. N = 250,521,034	
	n = 7,506 (n, weighted %)	n = 26,512 (n, weighted %)	
Predisposing Demographic Variables			
Mean Age (SD)	36.31 (0.29)	38.98 (0.37)	<0.001
Male Gender	4,206 (58.3%)	12,137 (46.6%)	<0.001
Income			
Poor (<100% FPL)	1,746 (16.2%)	5,901 (12.8%)	
Near Poor/Low (100-200% FPL)	1,940 (21.4%)	5,897 (17.2%)	<0.001
Middle or higher (>200% FPL)	3,820 (62.5%)	14,714 (70.0%)	
Education			
College Graduate	1,308 (24.6%)	4,393 (22.7%)	
High School graduate/GRE	3,737 (52.30%)	10,011 (41.1%)	<0.001
Did not graduate high school	2,220 (20.8%)	9,255 (27.1%)	
Census Region			
Northeast	857 (13.3%)	4,246 (18.6%)	
Midwest	1,074 (17.1%)	5,242 (22.3%)	<0.001
South	3,454 (44.3%)	9,632 (35.9%)	
West	2,121 (25.2%)	7,392 (23.3%)	
Race/Ethnicity			
White/Non-Hispanic	2,266 (52.2%)	10,397 (62.5%)	
Black/Non-Hispanic	1,445 (14.1%)	5,130 (11.8%)	<0.001
Hispanic	3,028 (24.3%)	8,088 (16.2%)	
Other	767 (9.4%)	2,897 (9.5%)	
Enabling Variables			
Insurance Coverage			
Publicly Insured	1,764 (18.3%)	10,193 (26.5%)	
Privately Insured	3,583 (60.6%)	14,604 (68.8%)	<0.001
Uninsured	2,159 (21.1%)	1,715 (4.7%)	
Delayed or withheld care due to cost	202 (2.6%)	533 (2.1%)	0.049
Need Variables			
Comorbid Conditions			
Depression/Mood Disorder	654 (10.9%)	3,995 (17.9%)	
Hypertension (HTN)	538 (8.0%)	6,068 (24.7%)	<0.001
Hyperlipidemia (HLP)	322 (5.3%)	4,659 (20.1%)	<0.001
Diabetes	223 (2.8%)	2,747 (10.0%)	<0.001
Asthma	217 (3.2%)	2,109 (7.8%)	<0.001
Coronary Heart Disease	74 (1.2%)	1,164 (5.0%)	<0.001
Mean Count of Conditions (SD)	3.83 (0.04)	1.82 (0.05)	<0.001

Limitation in Activity of Daily Living	5,692 (22.7%)	794 (12.3%)	<0.001
Self-Reported Poor/Fair Health Status	5,601 (18.5%)	1,261 (13.7%)	<0.001

*Includes all patients reporting having a USC regardless of whether that USC completed the Medical Organization Survey or not and regardless of whether that USC was recognized as a Patient-Centered Medical Home

eAppendix E. Descriptive Comparisons between Patients with a Usual Source of Care by Patient-Centered Medical Home (PCMH) Status

	Usual Source of Care is PCMH	Usual Source of Care is not-PCMH	p-value
	Wt. N = 31,235,136	Wt. N = 44,663,574	
	n = 3,330 (n, weighted %)	n = 4,644 (n, weighted %)	
Predisposing Demographic Variables			
Mean Age (SD)	38.80 (0.84)	40.29 (0.86)	0.181
Male Gender	1,388 (43.0%)	2,026 (44.7%)	0.220
Income			
Poor (<100% FPL)	918 (15.7%)	1,133 (13.9%)	
Near Poor/Low (100-200% FPL)	791 (18.8%)	995 (17.5%)	0.216
Middle or higher (>200% FPL)	1,621 (65.6%)	2,516 (68.6%)	
Education			
College Graduate	459 (20.2%)	737 (21.4%)	
High School graduate/GRE	1,160 (39.7%)	1,686 (40.0%)	0.927
Did not graduate high school	1,216 (27.0%)	1,580 (26.4%)	
Census Region			
Northeast	584 (21.7%)	673 (16.4%)	
Midwest	758 (26.4%)	743 (18.5%)	<0.001
South	1,139 (30.5%)	1,936 (42.7%)	
West	849 (21.4%)	1,292 (22.3%)	
Race/Ethnicity			
White/Non-Hispanic	1,299 (65.0%)	1,872 (64.1%)	
Black/Non-Hispanic	636 (10.7%)	768 (9.8%)	0.674
Hispanic	1,117 (16.9%)	1,566 (18.0%)	
Other	278 (7.5%)	438 (8.1%)	
Enabling Variables			
Insurance Coverage			
Publicly Insured	1,593 (33.2%)	2,038 (30.3%)	
Privately Insured	1,571 (63.5%)	2,407 (66.0%)	0.181
Uninsured	166 (3.3%)	199 (3.8%)	
Delayed or withheld care due to cost	94 (2.6%)	105 (2.3%)	0.570
Need Variables			
Comorbid Conditions			
Depression/Mood Disorder	579 (22.1%)	843 (20.4%)	0.223
Hypertension (HTN)	939 (29.6%)	1,348 (30.4%)	0.606
Hyperlipidemia (HLP)	734 (24.9%)	1,067 (25.4%)	0.773
Diabetes	419 (11.8%)	654 (13.6%)	0.107

Asthma	329 (9.8%)	464 (8.8%)	0.298
Coronary Heart Disease	162 (5.4%)	268 (6.5%)	0.114
Mean Count of Conditions (SD)	4.64 (0.10)	4.68 (0.09)	0.774
Limitation in Activity of Daily Living	821 (26.8%)	1,247 (27.2%)	0.804
Self-Reported Poor/Fair Health Status	869 (22.3%)	1,205 (22.3%)	0.982

*Includes all patients reporting having a USC regardless of whether that USC completed the Medical Organization Survey or not and regardless of whether that USC was recognized as a Patient-Centered Medical Home