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By Nadereh Pourat, Anna C. Davis, Xiao Chen, Shelley Vrungos, and Gerald F. Kominski

# In California, Primary Care Continuity Was Associated With Reduced Emergency Department Use And Fewer Hospitalizations

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**ABSTRACT** The expansion of health insurance to millions of Americans through the Affordable Care Act has given rise to concerns about increased use of emergency department (ED) and hospital services by previously uninsured populations. Prior research has demonstrated that continuity with a regular source of primary care is associated with lower use of these services and with greater patient satisfaction. We assessed the impact of a policy to increase patients' adherence to an individual primary care provider or clinic on subsequent use of ED and hospital services in a California coverage program for previously uninsured adults called the Health Care Coverage Initiative. We found that the policy was associated with a 42 percent greater probability of adhering to primary care providers. Furthermore, patients who were always adherent had a higher probability of having no ED visits (change in probability: 2.1 percent) and no hospitalizations (change in probability: 1.7 percent), compared to those who were never adherent. Adherence to a primary care provider can reduce the use of costly care because it allows patients' care needs to be managed within the less costly primary care setting.

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The Affordable Care Act (ACA) has expanded health insurance to millions of Americans since its passage in 2010. The coverage expansion has given rise to concerns about increased use of high-cost emergency department (ED) and hospital services by previously uninsured populations. Indeed, studies of gains in coverage conducted both before and after the ACA's enactment have reported increased levels of ED visits and hospitalizations among newly insured people.<sup>1,2</sup>

Before the ACA's enactment, many uninsured people received sporadic primary or urgent care from a variety of safety-net providers.<sup>3</sup> Confronted with long wait times and other access barriers, patients learned to seek care from any available and willing provider, often including EDs. Even then, most patients were unable to receive comprehensive care or see providers that

effectively managed their care and addressed all of their health care needs.

Continuity of care is considered essential to effective primary care.<sup>4</sup> Continuity is frequently viewed as the relationship between the individual clinician and the patient, although place-based continuity can also be incorporated into this concept.<sup>5</sup> The components of continuity of care are continuity of information (knowledge of the patient's history and preferences), relationships (such as with a primary care provider), and management (of the patient's chronic conditions). The third component—most essential in the care of patients with complex conditions—encompasses in turn the development of care plans and ensuring progress toward care goals by managing and coordinating the patient's needs across the care continuum.<sup>5</sup>

Greater continuity of care is associated with lower use of inpatient and ED services and great-

er patient satisfaction in other contexts.<sup>6-8</sup> Promoting continuity with the primary care provider may be particularly critical for newly insured Medicaid populations, which have pent-up demand for care<sup>9</sup> after experiencing gaps in access to and quality of care during uninsured periods.<sup>10</sup>

### The Health Care Coverage Initiative

In 2005 California received a Section 1115 Medicaid waiver from the Centers for Medicare and Medicaid Services. The waiver allowed the state to change payments to hospitals for care of Medicaid and uninsured patients and to use federal funds to provide coverage to low-income uninsured adults. The use of federal funds was called the Health Care Coverage Initiative and was implemented in ten California counties between September 2007 and August 2010.<sup>11</sup>

Under the initiative, each participating county established a safety-net-based provider network and a defined package of covered benefits. People eligible for coverage were adults younger than sixty-five who were residents of a participating county, uninsured, and not eligible for Medicaid or other public programs; whose income was no more than 200 percent of the federal poverty level; and who were US citizens or legal permanent residents who had lived in the United States for at least five years. Some counties established additional enrollment criteria based on need, health status, or other factors.

The Health Care Coverage Initiative required counties to assign patients to a “medical home.”<sup>11,12</sup> The goal was to improve patients’ experiences, increase the delivery of preventive care, and reduce the use of the ED—goals that the literature indicated could be met with the use of a medical home.<sup>13</sup> However, the initiative defined the medical home concept loosely, allowing the counties considerable flexibility in meeting this requirement. At a minimum, a medical home consisted of a provider that was an enrollee’s usual source of primary care, maintained the enrollee’s medical records, and coordinated his or her care.

Our study focused on Orange County, where the Health Care Coverage Initiative enrolled more than 49,000 uninsured adults during the program’s three-year life. We sought to determine whether an administrative policy to increase patients’ adherence to an assigned primary care provider could reduce negative outcomes such as frequent ED visits and hospitalizations, and whether these negative outcomes were in response to patients’ level of adherence to the provider.

Orange County’s safety-net-based provider network comprised community health centers

and providers in private practice. The county invested significantly in systems and tools for primary care providers to use in managing care delivery. These included a cloud-based health information system that provided access to patient demographic and utilization data, such as ED visit notes and hospital discharge information. The county also provided centralized disease management and case management services, a specialty referral system, feedback to providers on quality metrics and practice patterns, evidence-based guidelines, and enhanced reimbursement.<sup>14,15</sup>

After enrolling in the initiative, patients could select a community clinic or private practice provider from the provider network. If they did not make a selection, the county assigned them to a provider based on previous visits or proximity to the provider, or language spoken. Clinics in turn could assign patients to a specific practitioner, but they did not report these assignments to Orange County. Therefore, our measure of primary care provider assignment in this study included both assignments based on a place and those based on an individual practitioner.

During the first two years of the program, Orange County did not require patients to adhere to their chosen or designated primary care provider, allowing enrollees to change providers at any time. In the second year of the program, only about 40 percent of visits were deemed to be adherent to a primary care provider. This high level of nonadherence coincided with high rates of ED visits and hospitalizations.

In response, at the beginning of the third year, Orange County began requiring patients to adhere to their primary care provider for non-urgent outpatient primary care services. Both enrollees and providers were informed of the new policy by mail, and the requirement was enforced by denying payment for submitted claims to nonassigned providers. Patients were allowed to change providers only once every six months, and to do so they had to call or visit the program’s administrative offices.

Orange County concurrently began allowing providers to collect copayments for all outpatient (\$5) and ED (\$25) visits at their discretion. However, no data were available on whether and how often copays were collected.

We assessed the impact of Orange County’s policy to improve patients’ adherence to their designated primary care provider by studying patterns of primary care use and numbers of ED visits and hospitalizations. We expected that the proportion of visits to the designated primary care provider would increase after the policy was implemented, because providers would be less likely to deliver nonurgent care to un-

# Even small reductions in the number of hospitalizations could translate into substantial savings.

assigned patients after learning that they would not be reimbursed for doing so. Furthermore, we anticipated that increased adherence to the designated provider would reduce ED visits and hospitalizations, because if patients were more adherent, providers would be better able to manage chronic and complex conditions—which as a result would require less urgent or more intensive care.

## Study Data And Methods

**DATA** We used enrollment and claims data from the Health Care Coverage Initiative in Orange County for two years: the year before the primary care provider adherence policy was implemented (the pre period, September 2008–August 2009) and the year after (the post period, September 2009–August 2010). We generated annual summary records of utilization and enrollment for each patient.

Orange County restricted eligibility in the initiative to adults ages 21–64 instead of to those ages 18–64. We further limited the population for this study to people who had at least two months of program enrollment (one month in the first half-year and one in the second half-year) in any given year. We did not require enrollment in both the pre and post periods because that was unnecessary, given our statistical methods, and it would have significantly limited the size of the study population.

We excluded people who had fewer than two outpatient primary care visits to any provider and those with missing data for any of the covariates of interest. We included both paid and unpaid claims for outpatient services to capture visits by enrollees who violated the primary care provider adherence policy.

Our sample consisted of 10,028 annual records for 8,162 patients. Among these, 1,866 (23 percent) were enrolled during both the pre and post periods, 2,325 (28 percent) were enrolled only during the pre period, and 3,971 (49 percent) were enrolled only during the post

period. This resulted in a total sample of 4,191 enrollees in the pre period and 5,837 in the post period. The larger sample in the post period was due to continuous enrollment of newly eligible people in the program.

**METHODS** The main dependent variables of interest were the number of ED visits and hospitalizations. For ease of interpretation, we categorized these variables into zero, one, or two or more visits. We excluded from the count of ED visits those that led to hospitalizations, because they were already included in the hospitalization data. We treated transfers within a hospital as part of the same hospitalization but transfers between hospitals as separate hospitalizations.

We hypothesized that the effect of the primary care provider adherence policy on the use of ED and hospital services was mostly mediated through the effect of the patient's level of adherence to his or her primary care provider. A conceptual diagram is shown in online Appendix Exhibit A1.<sup>16</sup> The main predictor variables were an indicator for the post period to capture the effect of the policy change and a variable that measured the level of primary care provider adherence.

To compute the level of adherence, we first identified primary care visits that used claims with *Current Procedural Technology* (CPT) codes for evaluation and management services (codes 99201–99499) and that were billed by providers who were nurse practitioners, medical doctors, or osteopaths and whose specialty was family medicine or general internal medicine. We identified those primary care visits that were to the patient's assigned primary care provider by matching the provider ID numbers for the provider who rendered a service and the assigned primary care provider as of each visit date.

We then calculated the proportion of all primary care visits for each enrollee during the pre and post periods that were to the assigned primary care provider, a proportion that ranged from 0 percent to 100 percent. Finally, we categorized this variable into never adhered (0 percent), sometimes adhered (1–99 percent), or always adhered (100 percent).

To address potential simultaneity or reverse causality between primary care visits and ED visits or hospitalizations, we divided the data into four consecutive six-month blocks, two in the pre period and two in the post period. An additional discussion of the data structure is provided in online Appendix Exhibit A2.<sup>16</sup>

We then used the resulting lagged independent and dependent variables for the pre and post periods. We measured the level of primary care provider adherence based on the first six months of each year, and we used that level to

evaluate ED visits and hospitalizations during the second six months of that year. This approach made possible unbiased estimates of the relationship between continuity of care and utilization outcomes. In contrast, concurrent measurement could incorrectly introduce time-dependent bias.<sup>6</sup>

We used available data to adjust our path models for confounding factors, including the number of months of enrollment in the pre and post periods, sex, age, primary spoken language, race/ethnicity, and income as a percentage of poverty (based on family income and size of household) when people initially applied for enrollment. We also included indicators for the following chronic conditions: diabetes, asthma, chronic obstructive pulmonary disease, congestive heart failure, coronary artery disease, dyslipidemia, and hypertension. We assigned these specific chronic conditions to enrollees with any claims during the pre or post periods that had the relevant *International Classification of Diseases, Ninth Revision (ICD-9)*, codes. We also controlled for the total number of primary care visits, as an indicator of the level of need for care or complexity of existing conditions that could lead to ED visits and hospitalizations.

We used Stata, version 13, to implement our path models, with both the dependent variable (ED visits or hospitalizations) and the mediator variable (level of primary care provider adherence) being ordinal. This allowed us to assess in the same model the relationship between policy enactment and outcomes and the relationship between adherence and outcomes.

The three pathways of interest (shown in Appendix Exhibit A1)<sup>16</sup> were the direct impact of the enforcement policy on the level of primary care provider adherence (path A), the mediating impact of the level of adherence on ED visits and hospitalizations (path B), and the direct impact of the enforcement policy on ED visits and hospitalizations (path C). We assumed that the enforcement policy would reduce ED visits and hospitalizations through the mediating impact of improved primary care provider adherence. And we expected that path C would primarily reflect the impact of instituting outpatient and ED copays.

Each equation in the path model is an ordinal probit regression. We allowed the residuals from the equations to be correlated with one another. We corrected for repeated observations for the same patient using robust standard errors. Model coefficients were not easily interpretable, so we used postestimation procedures to generate marginal effect estimates. These represent the change in probability of being in each outcome category (for example, having no ED visits).

## Positive payment incentives may also encourage patients to remain with providers that incorporate their preferences into treatment plans.

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**LIMITATIONS** Our study had several limitations. Our results might not be generalizable because the adherence policy was implemented only among previously uninsured adults in one California county and because children were excluded from the program.

In addition, the Health Care Coverage Initiative was not a true insurance product. Orange County established a network of providers and paid for covered services within the county, but it did not cover services outside the network or in other counties. However, the program was similar to the narrow-network health maintenance organizations offered in the federal and state-based health insurance Marketplaces, and it included wraparound services that supported the delivery of primary care by the assigned providers.

Orange County did not have claims data for out-of-network use by enrollees. The initiative's network included all hospitals in the county, but it is possible that enrollees received services from out-of-network providers. However, we expect that such care was rare, particularly because these low-income enrollees would be unlikely to pay for care elsewhere if they had access to free care within the network. Moreover, we do not believe that there were systematic differences in the likelihood of receiving out-of-network services based on level of primary care adherence.

We lacked data on the precise characteristics of individual primary care practices. However, earlier studies of the initiative indicated a significant effort by Orange County to promote the concepts of the medical home model and supports for informational and management continuity in its network.<sup>15</sup> We also lacked extensive data on patient characteristics such as severity or outcomes beyond the use of services. This limited our ability to determine the impact of the policy on health status.

Finally, we controlled for clustering due to repeated observations of the same patients, but we could not correct for clustering of patients within clinics or primary care providers. This was because it was difficult to categorize patients according to a single clinic or provider during each year, because of the frequency of changes in providers. Thus, we could not account for provider characteristics such as workload or other behaviors that might have affected patients' adherence. However, Orange County regularly assessed providers' performance to monitor access and promote patient-centered care delivery.

Our study used unique data and rigorous statistical methods to disaggregate the effect of simultaneous implementation of two different policies<sup>17</sup> and to limit errors of causal inference.<sup>6</sup> We examined a natural experiment with few programmatic differences before and after the policy implementation, which allowed us to make clear inferences about the impact of continuity of care on the use of acute care. Additional research is needed to examine how reductions in ED visits and hospitalizations correspond to changes in outpatient utilization and the actual reduction in costs associated with lower use of acute care services.

## Study Results

The majority of enrollees were female, were older than age fifty, and used English as their primary language (Exhibit 1). Most enrollees had no ED visits or hospitalizations. The average number of primary care provider visits was similar in the pre and post periods. However, a much greater proportion of enrollees were always adherent to their designated provider during the post period (69.6 percent) than during the pre period (31.4 percent).

Among enrollees who were always adherent, the percentage of patients with two or more annual ED visits decreased from 4.11 percent in the pre period to 3.13 percent in the post period. Similarly, the percentage of patients with two or more annual hospitalizations decreased from 1.37 percent to 1.17 percent (data not shown).

Key parameter estimates from the fully adjusted structural equation models are presented as marginal effects for ease of interpretation (Exhibit 2). The impact of the enforcement policy on the level of primary care provider continuity (path A) was significant. Specifically, compared to enrollees in the pre period, those in the post period had a 35.5 percent lower probability of never adhering to their primary care provider and a 41.8 percent higher probability of always adhering. This confirms that the policy was effective in increasing the level of adherence

### EXHIBIT 1

#### Characteristics Of Enrollees In The Health Care Coverage Initiative In Orange County, California, Before And After Implementation Of A Policy To Increase Adherence To A Primary Care Provider

	Pre period		Post period	
	Number	Percent	Number	Percent
Total sample	4,191	100.0	5,837	100.0
<b>DEMOGRAPHIC CHARACTERISTICS</b>				
Sex				
Female	2,585	61.7	3,477	59.6
Male	1,606	38.3	2,360	40.4
Age (years)				
21–40	661	15.8	1,049	18.0
41–50	926	22.1	1,303	22.3
51–60	1,942	46.3	2,780	47.6
61–65	662	15.8	705	12.1
Race/ethnicity				
Black	64	1.5	72	1.2
White	788	18.8	1,078	18.5
Asian/Pacific Islander	1,266	30.2	1,679	28.8
Hispanic	995	23.7	1,300	22.2
Other	151	3.6	226	3.9
Unknown	927	22.1	1,482	25.4
Primary language				
Any Asian language	986	23.5	1,352	23.2
Spanish	727	17.3	1,001	17.2
English	2,435	58.1	3,410	58.4
Other	43	1.0	74	1.2
Income (percent of federal poverty level)				
0–133.0%	3,147	75.1	4,234	72.6
133.1–200.0%	957	22.8	1,496	25.6
Unknown	87	2.1	107	1.8
Chronic conditions				
Diabetes	1,785	42.6	2,312	39.6
Asthma/COPD	823	19.6	1,005	17.2
Congestive heart failure	300	7.2	330	5.7
Coronary artery disease	1,030	24.6	1,130	19.4
Hyperlipidemia	3,212	76.6	4,260	73.0
Hypertension	2,922	69.7	3,751	64.3
<b>ANNUAL USE OF HEALTH SERVICES</b>				
No. of emergency department visits				
0	3,547	84.6	4,995	85.6
1	420	10.0	587	10.0
2 or more	224	5.3	255	4.4
No. of hospitalizations				
0	3,874	92.4	5,457	94.4
1	234	5.6	301	5.2
2 or more	83	2.0	79	1.4
No. of primary care provider visits				
Mean (SD)	4.14 (2.74)		3.97 (2.34)	
Level of adherence to a medical home				
Never	2,108	50.3	620	10.6
Sometimes	769	18.3	1,158	19.8
Always	1,314	31.4	4,059	69.6

**SOURCE** Authors' analysis of claims and enrollment data from the Orange County Health Care Coverage Initiative. **NOTES** The pre period is the year before the primary care provider adherence policy (explained in the text) was implemented (September 2008–August 2009). The post period is the year after the policy was implemented (September 2009–August 2010). Descriptive statistics are simple unadjusted bivariate analyses stratified by period. A "medical home" refers to a clinic, private office, or provider that was the usual source of primary care, maintained enrollees' medical records, and coordinated their care. "Never" means that 0 percent of a patient's primary care visits were to his or her assigned primary care provider. "Sometimes" means that 1–99 percent of the visits were to that provider. "Always" means that 100 percent of the visits were to that provider. COPD is chronic obstructive pulmonary disease.

EXHIBIT 2

Marginal Effects Of The Policy To Increase Adherence To A Primary Care Provider On Emergency Department (ED) Visits And Hospitalizations

	Level of primary care adherence (%)			Use of acute care (%)					
	Never	Sometimes	Always	ED visits			Hospitalizations		
				0	1	2+	0	1	2+
Policy to enforce adherence to a usual source of primary care (paths A and C) Post period vs. pre period	-35.5****	-6.3****	41.8****	0.04	-0.02	-0.02	-0.06	0.04	0.02
Level of primary care adherence (path B) Sometimes vs. never	— <sup>a</sup>	— <sup>a</sup>	— <sup>a</sup>	1.7	-1.0	-1.0	1.7**	-1.2**	-0.5**
Always vs. never	— <sup>a</sup>	— <sup>a</sup>	— <sup>a</sup>	2.1**	-1.2**	-1.0**	1.7**	-1.2**	-0.5**

**SOURCE** Authors' analysis of claims and enrollment data from the Orange County Health Care Coverage Initiative. **NOTES** "Path A" is the direct impact of the enforcement policy on the level of primary care provider adherence. "Path B" is the impact of the level of provider adherence on ED visits and hospitalizations mediated by improved adherence. "Path C" is the direct impact of the enforcement policy on ED visits and hospitalizations. Key estimates from the fully adjusted ordinal probit models are presented as marginal effects for ease of interpretation; full model results are available in online Appendix Exhibit A3 (see Note 16 in text). Marginal effects represent the change in the probability of being in each outcome group after adjusting for confounders. The path models were adjusted for pre versus post period, level of primary care provider adherence, number of months of enrollment in each period, sex, age, self-reported primary spoken language, race/ethnicity, income as a percentage of poverty, presence of chronic health conditions (asthma/chronic obstructive pulmonary disease, congestive heart failure, coronary artery disease, dyslipidemia, and hypertension), and total number of primary care visits. <sup>a</sup>Not applicable. \*\**p*<0.05 \*\*\*\**p*<0.001

to a provider during the post period.

We also found that higher levels of provider adherence had a direct impact on ED visits and hospitalizations (path B) in the hypothesized direction. Specifically, patients who always adhered to their assigned primary care provider had a 2.1 percent higher probability of having no ED visits and a 1.7 percent higher probability of having no hospitalizations, when compared to patients who were never adherent (Exhibit 2). This coincided with significantly lower probabilities of having a single visit or two or more visits. A similar pattern was seen for patients who were sometimes adherent. However, the change in probability of ED visits was not significant for this group.

Finally, we did not find any significant direct impact of the primary care provider adherence policy on ED visits or hospitalizations (path C). This suggests that the policy did not change the pattern of ED and hospital use except through the mediating effect of the level of primary care provider adherence. We can infer that the simultaneous implementation of copays for ED visits as part of the adherence policy did not have a separate direct impact on utilization patterns.

We conducted a number of sensitivity analyses. Specifically, we tested models with continuous versions of the primary care provider adherence variable, as well as different cut points for the ordinal version of this variable; included patients with only one outpatient visit in either year in the analysis; included only patients who were enrolled in both years; included an interaction term for the multiplicative effect of paths A and B; and estimated the regressions using counts rather than categorical outcome variables.

All of the sensitivity analyses had similar results. We found that the interaction term was not significant, which indicated that the relationship between level of adherence and ED visits or hospitalizations was consistent in the pre and post periods. For parsimony and ease of interpretation, we therefore reported the models without interactions.

**Discussion**

As anticipated, our findings confirmed that implementation of the policy to encourage patients to use their designated primary care provider improved the level of adherence to the provider among patients (path A), and that higher levels of patient adherence were associated with fewer ED visits and hospitalizations (path B). We further found that the provider adherence policy did not have a significant direct impact on the volume of ED visits and hospitalizations (path C), except through the mediating impact of improved level of adherence.

The impact of the policy on patients' level of adherence to the primary care provider is not surprising, because it incentivized other providers—by denying their claims—to refer enrollees with nonurgent conditions back to their designated provider. It is likely that once enrollees were turned away by other providers, they changed their care-seeking behavior to be consistent with the policy and either adhered to their current primary care provider or changed their provider through established procedures.

The level of adherence after implementation of the policy did not reach 100 percent because providers had the option to see nonadherent



patients without reimbursement. This may have been more likely to occur in community health centers than in private practices.

The finding that an improved level of primary care provider adherence was associated with a reduction in the number of ED visits and hospitalizations confirms the importance of continuity of care in this low-income, previously uninsured adult population. It may be that this effect is due to better management of patients' health care needs by the designated providers, which could be particularly important for those with ambulatory care-sensitive and complex chronic conditions.

The literature on the impacts of fragmentation in primary care is sparse. Nevertheless, we hypothesize that the reductions in ED visits and hospitalizations that we observed took place because patients who use multiple sources of primary care may receive duplicate services, have inconsistent treatment plans and self-management instructions, improperly use medications, and have poorer health outcomes in general, when compared to patients who adhere to one primary care provider.

The magnitude of the effect of increased provider adherence on ED use and hospitalizations was small. Nonetheless, it was significant and is likely to be associated with meaningful cost savings. We did not have cost or payment data to use in evaluating the fiscal impact of the policy. However, average hospital expenses per inpatient day have been estimated to be \$3,002 for California in 2012,<sup>18</sup> and overall average expenses per hospitalization in the United States reached \$9,700 in 2010.<sup>19</sup> Thus, even small reductions in the number of hospitalizations could translate into substantial savings. Further analysis is warranted to assess the magnitude of cost savings resulting from this policy change.

The lack of a direct impact of the primary care provider adherence policy on ED visits and hospitalizations (path C) is not surprising, because the goal of the policy was to improve the rate of adherence to a provider. However, path C also reflects the simultaneous implementation of the copay policy. Therefore, our analysis suggests that ED copays did not prevent ED visits, either because of the urgency of medical need or because providers did not bother to collect the copay from these low-income patients.

Our findings are consistent with results in the existing literature, which shows that patients who have a consistent usual source of primary care have fewer ED visits and hospitalizations.<sup>6-8</sup> Furthermore, our findings suggest that even re-

cently uninsured adults who are newly eligible for Medicaid in many states are responsive to policy efforts to encourage better continuity of primary care. The higher levels of acute care utilization observed in the Oregon Health Insurance Experiment<sup>1</sup> might be counteracted by policy efforts to increase adherence to primary care providers. Moreover, coverage programs for low-income adults, including Medicaid programs nationally, might benefit from explicit efforts to promote continuity of primary care among beneficiaries, furthering the Triple Aim of better care, better health, and lower costs.<sup>20</sup>

Enforcing adherence to a primary care provider is difficult because of the perception that it restricts choice. Nevertheless, encouraging adherence may benefit patients and coverage providers. Attempts to improve continuity of care should include multiple approaches, such as both incentivizing other providers to redirect patients to, and incentivizing patients to adhere to, the chosen primary care providers.

Our results might not be generalizable to all settings and populations. However, similar associations between primary care adherence and ED use and hospitalizations may exist elsewhere. Different strategies to increase primary care provider adherence may be effective for privately insured populations. The negative provider incentive used in this program (declining to pay nonassigned primary care providers for non-urgent claims) might be effective for Medicaid broadly. But it could be less effective for private insurance plans whose patients could switch out of plans that they perceive to be too restrictive. Positive payment incentives to primary care providers who retain their patients could be used to improve aspects of care delivery such as patient-centered care, the effective coordination of care with other providers, and enhanced access through multiple communication channels with providers. The positive payment incentives may also encourage patients to remain with providers that incorporate their preferences into treatment plans, effectively manage all of their health care needs, and are easily accessed when needed.

## Conclusion

Changing providers' approach to care delivery and patients' care-seeking behaviors is fundamental to improving care and health outcomes while reducing costs. These approaches are particularly critical for populations that are newly insured under the ACA and for reducing future health care expenditures. ■

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NOTES

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