The Case for Synergy Between a Usual Source of Care and Health Insurance Coverage

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BACKGROUND: In 2010, the United States (US) passed health insurance reforms aimed at expanding coverage to the uninsured. Yet, disparities persist in access to health care services, even among the insured.

OBJECTIVE: To examine the separate and combined association between having health insurance and/or a usual source of care (USC) and self-reported receipt of health care services.

DESIGN/SETTING: Two-tailed, chi-square analyses and logistic regression models were used to analyze nationally representative pooled 2002–2007 data from the Medical Expenditure Panel Survey (MEPS).

PARTICIPANTS: US adults (≥ 18 years of age) in the MEPS population who had at least one health care visit and who needed any care, tests, or treatment in the past year ($n=62,067$).

MAIN OUTCOME MEASURES: We assessed the likelihood of an adult reporting unmet medical needs; unmet prescription needs; a problem getting care, tests, or treatment; and delayed care based on whether each individual had health insurance, a USC, both, or neither one.

KEY RESULTS: Among adults who reported a doctor visit and a need for services in the past year, having both health insurance and a USC was associated with the lowest percentage of unmet medical needs, problems and delays in getting care while having neither one was associated with the highest unmet medical needs, problems and delays in care. After adjusting for potentially confounding covariates (age, race, ethnicity, employment, geographic residence, education, household income as a percent of federal poverty level, health status, and marital status), compared with insured adults who also had a USC, insured adults without a USC were more likely to have problems getting care, tests or treatment (adjusted relative risk [aRR] 1.27; 95% confidence interval [CI] 1.18–1.37); and also had a higher likelihood of experiencing a delay in urgent care (aRR 1.12; 95% CI 1.05–1.20).

CONCLUSIONS: Amidst ongoing health care reform, these findings suggest the important role that both health insurance coverage and a usual source of care may play in facilitating individuals' access to care.

KEY WORDS: health insurance; usual source of care; access to health care; health policy; health care reform.

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INTRODUCTION

With the recent passage of one of the most monumental health insurance reform policies in US history, energies are now focused on expanding health insurance coverage to millions of Americans. These efforts are important due to the overwhelming evidence that stable health insurance coverage is associated with more consistent access to health care services, which contributes to better outcomes.^{1–4} Yet, even among insured persons, there are disparities in access to care and the quality of care received.^{5–7} Insurance coverage is often necessary to access care, but not always sufficient,^{8–11} especially if insured individuals have no place to obtain care.^{12,13} Approximately 19% of all US adults are without a usual source of care (USC), and 53% of uninsured adults have no USC.^{14–16} Safety net services are oversubscribed and the supply of primary care services is widely disparate across the country,^{17,18} leaving many Americans with few options to find and maintain a stable USC. This is further challenged by the amount of influence payers exert over the choices available to their clients, often creating restrictive provider networks and financial penalties for patients seeking a USC outside the network.^{19,20}

The emphasis on insurance coverage in recent policies coupled with primary care workforce shortages prompted us to revisit the question of how much influence insurance and a USC have on receipt of needed health care services. Past studies have examined health insurance or a USC individually, usually controlling for the other factor. The few studies that have combined the two predictors have usually focused exclusively on a single outcome or a specific population.^{21–25} The primary objectives of this study were (1) to describe the prevalence of and characteristics associated with having insurance coverage and/or a USC; and (2) to ascertain the separate and combined association between having health insurance and/or a USC and self-reported access to health care services for a nationally representative

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population of adults who reported having a need for services.

tests, or treatment (n=62,067) in order to more accurately assess unmet health care needs.

METHODS

Data

We analyzed data from the Medical Expenditure Panel Survey-Household Component (MEPS-HC).²⁶ The MEPS-HC utilizes a stratified and clustered random sample from National Health Interview Survey households with weights that produce nationally representative estimates for the civilian, non-institutionalized US population.²⁷ MEPS-HC respondents are interviewed 5 times over a 2-year period, with an overlapping panel design; annual public use data files contain data from a single year for 2 consecutive panels. Each year of data constitutes a nationally representative sample, and pooling the data produces average annual estimates. Certain groups (e.g., low income, racial minorities) are oversampled.

We combined data from the 2002 through 2007 annual public use data files, because these 6 years have a common variance structure necessary to ensure compatibility and comparability of our variables within the complex sample design. We first included all adults in the MEPS-HC with positive full-year weights and known information about USC and full-year insurance status (n=134,714, which excluded 1,975 individuals without insurance and/or USC information). This sample is representative of a population of nearly 215.8 million. We then limited the analyses of unmet needs to the adult MEPS-HC subpopulation (≥ 18 years of age) who had at least one health care visit in the previous 12 months and who reported that they had a need for additional care,

Variables and Analyses

Outcome Variables. We identified MEPS-HC items that highlighted self-reported access to care and quality of care in the past 12 months among adults, including: (1) unmet medical needs, (2) unmet prescription needs, (3) problems getting care, tests, or treatment, and (4) delayed urgent care. Unmet medical needs were defined as whether the person was unable to receive medical treatment or was delayed in receiving medical treatment. Unmet prescription needs was defined as whether the person was unable to receive prescription treatment or was delayed in receiving prescription treatment. Problems getting care, tests, or treatment was defined by whether or not it was a problem to get care, tests, or treatment that the person or a doctor believed necessary. Delayed urgent care was defined by whether or not the person always got care for an illness, injury or condition as soon as wanted if they had an illness, injury or condition that needed care right away.²⁶

Independent Variables. We assessed whether an individual had health insurance coverage and/or a USC at the same point during the year. MEPS ascertains USC status by asking whether there is a particular doctor's office, clinic, health center, or other place (including emergency departments) where the individual usually goes when he/she is sick or needs advice about his/her health.²⁶ We then created four subgroups, including: (1) insured and had a USC (Yes INS/Yes USC); (2) insured but no USC (Yes INS/No USC); (3) not insured but had a USC (No INS/Yes USC); and (4) not insured and no USC (No INS/No USC).

We used the conceptual model designed by Aday and Andersen to guide the identification of nine additional

Table 1. Average Annual Percentage of the US Adult Population and Adults with a Need for Care in the Past 12 Months Who Had Health Insurance (Cross-Sectional) and/or an Identified Usual Source of Care (Cross-Sectional), Between 2002 and 2007

Insurance and/or Usual Source of Care	US Adult Population ≥ 18 years of age ^a		Adults with a Need for Health Care Services in the Preceding 12 Months ≥ 18 years of age ^b	
	Unweighted <i>n</i>	Weighted <i>n</i> , in millions (Weighted %) ^c	Unweighted <i>n</i>	Weighted <i>n</i> , in millions (Weighted %) ^c
TOTAL	134,714	215.8 (100.0)	62,067	113.0 (100.0)
Health Insurance, Cross-Sectional ^d				
Yes, Had Insurance	102,555	174.3 (80.8)	54,117	101.0 (89.4)
No, Did Not Have Insurance	32,159	41.5 (19.2)	7,950	12.0 (10.7)
Usual Source of Care, Cross-Sectional ^d				
Yes, Had Usual Source of Care	100,663	166.6 (77.2)	55,303	101.3 (89.6)
No, Did Not Have Usual Source of Care	34,051	49.2 (22.8)	6,764	11.7 (10.4)
Combined Health Insurance & Usual Source of Care, Cross-Sectional ^d				
Yes Insured/Yes Usual Source of Care	85,947	146.7 (68.0)	49,682	92.7 (82.0)
Yes Insured/No Usual Source of Care	16,608	27.6 (12.8)	4,435	8.3 (7.4)
Not Insured/Yes Usual Source of Care	14,716	19.9 (9.2)	5,621	8.6 (7.6)
Not Insured/No Usual Source of Care	17,443	21.6 (10.0)	2,329	3.4 (3.0)

Source: 2002–2007 Medical Expenditure Panel Survey (MEPS), Household Component

Note: Column percentages may not equal 100% due to rounding (rounded to nearest tenth)

^aTotal in US adult population from 6-year pooled sample (2002–2007) with known usual source of care and insurance status information=134,714 (weighted average annual population N=215.8 million)

^bOnly includes adults who had a health care visit and for whom they or a doctor believed they needed additional care, tests, or treatment

^cTo derive population estimates for the adult group, each record was weighted according to the person-level weights provided by the MEPS

^dRound 4/2 (cross-sectional)

covariates that might influence access to care, including: age, race, ethnicity, employment, geographic residence, education, household income as a percent of federal poverty level, health status, and marital status.^{28–30} In two-tailed, chi-square analyses, each covariate was significantly associated with at least one outcome ($p < 0.10$); thus, all covariates were included in logistic regression models.

Statistical Analysis. We determined the prevalence of patterns of insurance coverage and/or a USC for the entire population ($n = 134,714$); we then limited the analysis to the subpopulation of adults (≥ 18 years of age) who had seen a clinician at least once in the previous 12 months and who reported that they had a need for

additional care, test, or treatment ($n = 62,067$). We then used chi-square analyses and logistic regression models to examine characteristics associated with having no insurance (versus health insurance) and no USC (versus having a USC). Next, we used chi-square analyses to assess significant socio-demographic differences among the INS/USC subgroups. Finally, we used a series of standard logistic regression models to compare the adjusted relative risks among the INS/USC subgroups for each of the outcomes. Model-building was done first for the unmet medical needs outcome using backward selection. Covariates selected in this model were then used for all remaining outcomes to achieve consistency in our examination, and to facilitate comparisons of results across models. We reported measures of association as risk

Table 2. Associations Between Socio-Demographic Characteristics and a Lack of Insurance and/or a Usual Source of Care, (2002–2007), Among Adults with a Need for Health Care Services in the Preceding 12 Months

Demographic and Other Characteristics	No Insurance		No Usual Source of Care	
	Weighted % ^a	aRR (95% CI)	Weighted % ^a	aRR (95% CI)
Insurance Status				
Yes INS	N/A	N/A	8.3	1.00
No INS			28.3	2.46 (2.29–2.64)
Usual Source of Care (USC)				
Yes USC	8.5	1.00	N/A	N/A
No USC	29.0	2.27 (2.13–2.43)		
Age				
18–24	23.1	1.22 (1.11–1.35)	22.7	2.25 (2.05–2.47)
25–44	14.6	1.13 (1.06–1.20)	16.1	1.92 (1.79–2.07)
45–64	10.7	1.00	7.2	1.00
65+	0.2	0.01 (0.01–0.02)	3.2	0.57 (0.50–0.66)
Race				
White Only	10.2	1.00	9.9	1.00
Black Only	13.8	0.90 (0.81–0.99)	12.4	1.09 (0.99–1.19)
Other/Multiple Races	11.7	1.00 (0.89–1.11)	14.1	1.31 (1.17–1.47)
Ethnicity				
Not Hispanic	9.5	1.00	9.7	1.00
Hispanic	23.3	1.45 (1.34–1.56)	17.8	1.35 (1.24–1.48)
Employment				
Employed ^b	10.6	1.00	12.1	1.00
Unemployed	10.7	1.22 (1.14–1.31)	7.8	0.86 (0.80–0.92)
Education				
12 years or more	9.4	1.00	10.3	1.00
Less than 12 years	17.2	1.29 (1.20–1.38)	10.7	0.92 (0.84–0.99)
Geographic Residence				
Northeast	8.7	1.00	6.4	1.00
Midwest	9.2	1.02 (0.89–1.16)	9.2	1.46 (1.29–1.66)
South	12.3	1.20 (1.08–1.33)	12.3	1.85 (1.65–2.07)
West	11.4	1.05 (0.94–1.19)	12.3	1.76 (1.56–1.98)
Household Income as a percent of Federal Poverty Level (FPL)				
High	5.1	1.00	8.9	1.00
Middle	11.2	1.88 (1.71–2.07)	10.9	1.06 (0.99–1.14)
Low	18.1	3.24 (2.92–3.60)	11.3	1.07 (0.98–1.18)
Near Poor	19.7	3.42 (3.01–3.89)	12.7	1.24 (1.08–1.44)
Poor	24.7	3.19 (2.82–3.60)	14.8	1.25 (1.14–1.38)
Health Status				
Excellent	9.2	1.00	13.7	1.00
Very Good	9.4	1.06 (0.97–1.15)	10.8	0.84 (0.78–0.90)
Good	11.7	1.20 (1.10–1.30)	9.6	0.75 (0.69–0.81)
Fair	12.7	1.13 (1.02–1.24)	8.2	0.68 (0.62–0.75)
Poor	13.1	1.04 (0.92–1.17)	6.1	0.53 (0.45–0.63)
Marital Status				
Married	7.9	1.00	8.5	1.00
Not Married	14.8	1.35 (1.25–1.46)	13.2	1.23 (1.15–1.31)

Source: 2002–2007 Medical Expenditure Panel Survey (MEPS), Household Component

aRR: adjusted risk ratio, CI: confidence interval

^aOnly includes adults who had a health care visit and for whom they or a doctor believed they needed additional care, tests, or treatment. To derive population estimates, each record was weighted according to the person-level weights provided by the MEPS

^bThose reporting currently being employed in the workforce at time of survey

ratios because when an outcome is common (e.g. prevalence of >10% in a population), odds ratios do not accurately approximate the risk ratio.³¹

We used SUDAAN Version 10.0.1 for all statistical analyses to account for the complex sampling design of the MEPS; all comparisons utilized a two-tailed $p < 0.05$ to define statistical significance. This study protocol was deemed exempt from review by the Oregon Health and Science University Institutional Review Board because MEPS-HC data are publicly available.

RESULTS

An estimated 77.2% of the US adult population had a USC; and 80.8% had health insurance. Only 68.0% of US adults had

both a USC and insurance, while 10.0% had neither one (Table 1). Among adults in the subgroup reporting at least one health care visit and a need for additional services, a higher percentage had health insurance and a USC.

In many cases, demographic patterns were similar when comparing those with no insurance to those with no USC (Table 2). For example, adults younger than 45 were more likely to be in the group without insurance and without a USC, as compared to those between the ages of 45–64, while adults older than 65 were much less likely to be in either group. There were some examples, however, where demographic patterns varied among adults with no insurance versus those with no USC. For example, unemployed adults were more likely to have no insurance (aRR 1.22; 95% CI 1.14–1.31) but less likely to have no USC (aRR 0.86; 95% CI 0.80–0.92), as compared with

Table 3. Demographic Characteristics of US Adults with a Need for Health Care Services in the Preceding 12 Months, By Cross-Sectional Health Insurance Status and/or a Usual Source of Care

Demographic Variables	Yes INS	Yes INS	No INS	No INS	Total (Weighted %) ^e
	Yes USC ^a	No USC ^b	Yes USC ^c	No USC ^d	
	(Weighted %) ^e	(Weighted %) ^e	(Weighted %) ^e	(Weighted %) ^e	
Total Sample n	49,682 (82.0%)	4,435 (7.4%)	5,621 (7.6%)	2,329 (3.0%)	62,067 (100%)
Age ^f					
18–24	6.3	15.7	15.6	23.2	8.2
25–44	28.4	47.1	39.4	52.3	31.3
45–64	39.5	28.1	44.6	23.9	38.6
65+	25.8	9.1	0.4	0.7	21.9
Race ^f					
White Only	85.9	82.2	82.9	79.4	85.2
Black Only	8.8	10.0	11.3	13.5	9.2
Other/Multiple Races	5.4	7.8	5.8	7.1	5.6
Ethnicity ^f					
Hispanic	6.8	9.6	15.2	25.0	8.2
Not Hispanic	93.2	90.5	84.8	75.0	91.8
Employment ^f					
Employed	59.4	73.7	59.1	62.9	60.6
Unemployed	40.6	26.3	40.9	37.1	39.4
Education ^f					
12 years or more	85.4	88.2	75.5	73.6	84.5
Less than 12 years	14.6	11.8	24.6	26.4	15.5
Geographic Residence ^f					
Northeast	20.9	12.0	17.6	12.0	19.7
Midwest	24.0	21.6	20.8	18.6	23.4
South	33.8	41.5	40.2	41.3	35.1
West	21.3	24.9	21.4	28.1	21.8
Household Income as a % of Federal Poverty Level (FPL) ^f					
High	49.8	48.6	23.9	18.7	46.8
Middle	28.9	30.5	30.5	30.7	29.2
Low	10.6	8.9	18.9	21.0	11.5
Near Poor	3.2	3.2	6.4	7.1	3.6
Poor	7.5	8.9	20.2	22.6	9.0
Marital Status ^f					
Married	62.6	54.0	47.1	37.2	60.0
Not Married	37.4	46.0	52.9	62.9	40.0
Insurance Type					
Any Private	79.6	84.7	N/A	N/A	79.9
Public Only	20.6	15.3			20.1

Source: 2002–2007 Medical Expenditure Panel Survey (MEPS), Household Component

Note: Column percentages may not equal 100% due to rounding (rounded to nearest tenth)

^aYes Usual Source of Care/Yes Insurance in Round 4/2 (cross-sectional)

^bNo Usual Source of Care/Yes Insurance in Round 4/2 (cross-sectional)

^cYes Usual Source of Care/No Insurance in Round 4/2 (cross-sectional)

^dNo Usual Source of Care/No Insurance in Round 4/2 (cross-sectional)

^eOnly includes adults who had a health care visit and for whom they or a doctor believed they needed additional care, tests, or treatment. To derive population estimates, each record was weighted according to the person-level weights provided by the MEPS

^f $p < 0.01$ in the χ^2 analysis for overall differences between subcategories of each demographic characteristic

employed adults. Similarly, compared to those reporting “excellent” health status, those reporting their health status as “good” were more likely to have no insurance (aRR 1.20; 95% CI 1.10–1.30) but less likely to have no USC (aRR 0.75; 95% CI 0.69–0.81).

Demographic characteristics varied when comparing the INS/USC subgroups (Table 3). For example, Hispanic adults were only 8.2% of the total sample, but represented 25.0% of the group without both insurance and a USC. Of the 15.0% of adults in the subgroups with either insurance alone or a USC alone, a higher

percentage were Hispanic, lived in the Southern region of the US, and/or were from lower earning households.

Receipt of Health Care Services Associated with Insurance Status and Usual Source of Care

Among US adults in this study population, having health insurance and a USC was associated with the lowest percentage of unmet medical needs, problems and delays in getting

Table 4. Associations Between Insurance, Usual Source of Care, and Other Characteristics and Unmet Health Care Needs (2002–2007), Among Adults with a Need for Health Care Services in the Preceding 12 Months

Demographic and Other Characteristics	Unmet Medical Needs ^a		Unmet Prescription Needs ^b		Problems Getting Care, Tests, or Treatment ^c		Delayed Urgent Care ^d	
	Weighted %	aRR (95% CI)	Weighted %	aRR (95% CI)	Weighted %	aRR (95% CI)	Weighted %	aRR (95% CI)
Insurance/Usual Source of Care (USC)								
Yes INS/Yes USC	6.4	1.00	5.4	1.00	15.8	1.00	37.1	1.00
Yes INS/No USC	7.1	1.05 (0.91–1.22)	4.3	0.83 (0.70–0.99)	21.3	1.27 (1.18–1.37)	43.5	1.12 (1.05–1.20)
No INS/Yes USC	18.1	2.04 (1.85–2.26)	13.2	1.72 (1.54–1.93)	33.0	1.63 (1.53–1.73)	54.4	1.29 (1.22–1.37)
No INS/No USC	20.8	2.46 (2.17–2.78)	11.9	1.73 (1.45–2.05)	41.1	2.04 (1.88–2.21)	62.0	1.47 (1.38–1.57)
Age								
18–24	8.2	1.00	4.7	1.00	22.3	1.00	16.5	1.00
25–44	9.2	1.34 (1.17–1.53)	6.5	1.60 (1.34–1.92)	21.4	1.01 (0.93–1.10)	44.0	0.94 (0.88–1.00)
45–64	8.5	1.22 (1.06–1.40)	6.9	1.60 (1.34–1.90)	18.4	0.89 (0.81–0.96)	40.8	0.86 (0.81–0.92)
65+	4.2	0.59 (0.50–0.71)	4.7	0.94 (0.77–1.15)	12.1	0.59 (0.53–0.65)	30.2	0.65 (0.60–0.71)
Race								
White Only	7.7	1.00	5.9	1.00	16.9	1.00	39.0	1.00
Black Only	7.9	0.68 (0.60–0.77)	8.0	0.87 (0.77–0.98)	23.0	1.15 (1.08–1.22)	41.1	0.98 (1.93–1.04)
Other/Multiple Races	8.1	0.89 (0.77–1.03)	5.8	0.87 (0.74–1.03)	32.7	1.74 (1.62–1.88)	52.3	1.28 (1.19–1.37)
Ethnicity								
Not Hispanic	7.7	1.00	6.2	1.00	17.4	1.00	38.9	1.00
Hispanic	8.1	0.68 (0.60–0.78)	5.4	0.60 (0.52–0.70)	28.1	1.23 (1.15–1.31)	51.1	1.14 (1.08–1.21)
Employment								
Employed	7.6	1.00	5.3	1.00	17.9	1.00	40.6	1.00
Unemployed	8.0	0.91 (0.84–0.99)	7.4	1.03 (0.94–1.12)	18.9	0.96 (0.92–1.01)	39.3	0.97 (0.92–1.01)
Education								
12 years or more	7.5	1.00	5.8	1.00	17.2	1.00	38.7	1.00
Less than 12 years	9.0	0.88 (0.80–0.96)	8.0	0.91 (0.84–1.00)	23.8	1.04 (0.98–1.10)	45.9	1.07 (1.02–1.12)
Geographic Residence								
Northeast	5.9	1.00	4.6	1.00	17.7	1.00	37.5	1.00
Midwest	7.0	1.13 (0.99–1.29)	5.7	1.17 (0.97–1.42)	15.2	0.87 (0.81–0.94)	37.3	0.98 (0.93–1.04)
South	8.3	1.27 (1.11–1.45)	7.1	1.38 (1.15–1.65)	18.9	0.98 (0.91–1.04)	41.2	1.04 (0.99–1.10)
West	9.2	1.47 (1.27–1.71)	6.2	1.34 (1.11–1.61)	21.3	1.09 (1.01–1.17)	43.3	1.10 (1.04–1.16)
Household Income as % of Federal Poverty Level (FPL)								
High	5.4	1.00	3.6	1.00	14.2	1.00	35.1	1.00
Middle	8.1	1.22 (1.11–1.33)	6.4	1.45 (1.30–1.63)	18.8	1.13 (1.07–1.20)	41.6	1.10 (1.05–1.15)
Low	9.8	1.32 (1.17–1.50)	8.6	1.70 (1.49–1.95)	22.4	1.23 (1.15–1.32)	43.5	1.12 (1.06–1.19)
Near Poor	12.5	1.53 (1.33–1.76)	11.5	2.04 (1.71–2.44)	23.8	1.23 (1.11–1.36)	44.1	1.12 (1.03–1.21)
Poor	14.4	1.49 (1.31–1.70)	12.7	1.96 (1.70–2.26)	30.7	1.43 (1.33–1.55)	47.5	1.12 (1.06–1.20)
Health Status								
Excellent	3.7	1.00	2.6	1.00	11.7	1.00	30.2	1.00
Very Good	5.6	1.53 (1.33–1.77)	3.8	1.40 (1.19–1.65)	14.7	1.29 (1.21–1.38)	36.3	1.23 (1.15–1.32)
Good	8.1	2.19 (1.91–2.51)	6.5	2.22 (1.91–2.58)	19.9	1.69 (1.58–1.80)	42.2	1.43 (1.33–1.54)
Fair	13.6	3.64 (3.16–4.19)	11.6	3.60 (3.04–4.26)	27.5	2.29 (2.12–2.48)	45.0	1.56 (1.45–1.68)
Poor	18.9	4.98 (4.27–5.80)	17.3	5.02 (4.24–5.95)	33.3	2.77 (2.54–3.03)	50.0	1.73 (1.59–1.88)
Marital Status								
Married	5.7	1.00	4.6	1.00	16.7	1.00	39.3	1.00
Not Married	10.8	1.65 (1.52–1.78)	8.3	1.52 (1.40–1.65)	20.8	1.05 (1.00–1.10)	41.0	0.96 (0.92–1.00)

Source: 2002–2007 Medical Expenditure Panel Survey (MEPS), Household Component

aRR: adjusted risk ratio, CI: confidence interval

Note: To derive population estimates, each record was weighted according to the person-level weights provided by the MEPS

^aRespondent reported being unable to get needed medical care or there was a delay in getting needed medical care

^bRespondent reported being unable to get needed prescription medications or there was a delay in getting needed prescriptions

^cRespondent reported having a problem in getting the care, tests, or treatment that they or a doctor believed necessary

^dRespondent reported not always getting care as soon as was wanted for an illness, injury, or condition that needed care right away. Only 26,810 adults reported having an illness, injury, or condition needing care right away

care while having neither one was associated with the highest percentage of these three outcomes (Table 4). Unmet prescription needs appeared to be more strongly associated with a lack of health insurance as compared to the other outcomes. The univariate associations between receipt of health care services and having both health insurance and a USC remained strong in multivariate analyses.

When comparing the two middle subgroups (Yes INS/No USC and No INS/Yes USC) to the reference group (Yes INS/Yes USC), having either insurance only or a USC only was associated with higher rates of problems getting care and delayed urgent care as compared with having both insurance and a USC. For unmet medical needs, the insured without a USC were no more or less likely to report differences in access to treatment than the group with both insurance and a USC. And, those with insurance but no USC were actually *less* likely to report unmet prescription needs (aRR=0.83; 95% CI=0.70–0.99). The subgroup with no insurance and no USC had a higher likelihood of reporting all unmet need outcomes when compared to the reference group with insurance and a USC.

DISCUSSION

This study addressed the separate and combined association between insurance and/or a USC and access to health care for adults in the US. The uninsured without a USC were at highest risk for not receiving needed services. In many cases, having only insurance or only a USC was associated with higher rates of unmet needs as compared to having both. In addition to the differences noted among the INS/USC subgroups, there were consistent patterns of increased vulnerability among those in all income categories below 400% FPL and among those reporting less than “excellent” health status. Those over age 65 were less likely to experience unmet medical needs, problems getting care and delayed care, than those in the reference age group between 18–24 years of age. This confirms previous work which has found that receipt of unmet health care needs, and many disparities in basic cardiovascular risk measures, decline for those over age 65.^{32–37} It has been reported that these declines are largely due to many uninsured adults obtaining Medicare at age 65. However, we controlled for insurance status, so there may be an additional protective effect from Medicare insurance as compared to another type of insurance. In addition, perhaps, those in this age group may be more proficient at navigating the health care system to get their needs met or they may be less likely to report an unmet need.

As shown in Table 2, those without insurance were more likely to not have a USC and vice versa; however, Table 3 shows that 15% of adults have either insurance or a USC but not both, highlighting that access to one does not guarantee access to the other. This suggests that covering millions more with stable health insurance will not ensure that everyone has a USC. In fact, some studies propose that expanding eligibility for public insurance programs or mandating individual coverage, without a mechanism to ensure adequate provider capacity, will merely result in more covered Americans with nowhere to go for care.^{13,38–40} Alternatively, expanding the number of community health centers may bolster the capacity of the safety net in order to improve access to a USC, but leave thousands without insurance to cover necessary prescription

medications, tests, referrals and ancillary services.⁴¹ Concurrent with health insurance reforms, there is a separate need to focus on bolstering the US health system's capacity to provide a stable usual source of care.

Further, even individuals with financial access (i.e. insurance) and structural access (i.e. a USC) do not always receive care.^{5,8,12} For example, in this study, 5.4% to 37.1% of adults in the Yes INS/Yes USC group reported having at least one of the unmet health care needs. This suggests that having insurance and a USC provides *potential access*, but the degree of synergy between them dictates whether *realized access* is achieved (Fig. 1).

Figure 1 illustrates the difference between the *potential for care* and the *reality of care*. An individual can have insurance, which provides potential financial access; but if he or she cannot find a primary care physician within the insurance network, care cannot be realized. Alternatively, if structural access is available but the care is unaffordable (i.e. lack of financial access), then the care is not realized. In either case, *potential access is not real access* until both financing and delivery are coordinated and consistently available. Figure 1 demonstrates the important overlap that must exist to make access a reality—only at the confluence of the two circles. Thus, unmet need does not mean having no access; rather, unmet need is the difference between having potential and realized access (the outer, non-overlapping areas of each circle in Figure 1). This model might help to explain why over one-third of adults with insurance and a USC reported at least one unmet need in this study. If someone has financial and structural access (potentially) but the circles in Figure 1 have little or no overlap, then they are likely to experience unmet needs.

There are exceptions. Some individuals who lack potential access or who have minimal overlap do realize care. For example, a patient's USC might agree to continue seeing her even though she has lost insurance and no longer has financial access. Or, a patient who has changed insurance carriers may pay out-of-pocket to continue receiving services from a trusted USC outside of his network (although this is rare and usually results in patient's reducing contact with their USC).¹⁹

“Patient-centered medical homes” might help to improve synergistic relationships between the financing and delivery of primary health care, especially if payment mechanisms are transformed to facilitate comprehensive and integrated care.^{42–49} Innovators have made headway in defining and demonstrat-

Figure 1. Potential and realized access to health care services.

ing medical home models.^{44,45,50–53} However, the number of US medical school graduates entering primary care professions has been in a rapid decline, which casts doubt on the US health care system's ability to provide a basic USC, whether a medical home or not, to all newly insured persons.⁵⁴ Thus, it remains to be seen whether medical home efforts to improve quality and performance will increase capacity and ensure continuous access to a USC.

Limitations

Secondary data analyses are limited to existing data. For example, MEPS-HC data are available through 2007, so we were not able to ascertain the effects of the recent economic downturn. We reported on cross-sectional measures for both insurance and a USC because we did not have data to capture longitudinal USC status; therefore, we could not capture the effects of duration of insurance and/or continuity with a USC.^{55–57} We also did not account for the type of USC provider, which might contribute to subtle differences that were not measured in this study.⁵⁸ Also, we did not include a full analysis of the specific reasons people reported a lack of a USC; however, upon review of the main reasons we found the top reported to be that respondents were seldom or never sick and the second most common was that the cost of medical care was too high. Since we used a subgroup that included people who had seen a clinician at least once in the past year and who reported that they had a need for care, it is unlikely that these reasons for a lack of USC would change our results. As with all studies that rely on self-report, response bias remains a possibility.

Although the MEPS-HC is representative of the civilian, non-institutionalized US population, the observational nature of the data limits causal inferences. We aimed to achieve consistency in our examination; thus, we included the same covariates across all logistic regression models. We secondarily assessed associations with other covariates, but did not build individual models for a comprehensive examination of each covariate.

Finally, we recognize that every state has unique insurance programs, and the availability of services varies widely by region. While we could not account for the willingness of providers to care for underserved populations or the availability of safety net services in every region, the multivariable analyses did include a MEPS-HC geographic region variable, which would be considered a crude proxy for some of these variations.

CONCLUSIONS

Unless policy reforms are well-coordinated, the best we can expect is that an incremental two-pronged approach will continue—investment in safety net services for some and expansions in health insurance coverage for others. This study suggests that neither one of these two approaches to expand access displaces the need for the other; thus, future policies should focus on ensuring that those with insurance coverage also have a usual source of care. Further, having both health insurance and a USC are necessary but not always sufficient to ensure receipt of services. Greater synergy between these financing and delivery aspects of care will move us even closer to achieving optimal access to care.

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