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Authors

Roby, Dylan H.
Nicholson, Gina
Kominski, Gerald F.

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UCLA Health Policy Research Brief

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African Americans in Commercial HMOs More Likely to Delay Prescription Drugs and Use the Emergency Room

Dylan H. Roby, Gina L. Nicholson and Gerald F. Kominski

Health Maintenance Organizations (HMOs) are designed to provide comprehensive health care, including primary care to their enrollees. However, HMOs deliver care through a wide variety of physician networks, settings and methods throughout the nation and in California.[1] Minorities and individuals of lower socioeconomic status continue to disproportionately rely on the health care safety net, even when insured.[2] Individuals enrolled in HMOs should be less likely to rely on emergency rooms and experience ambulatory care sensitive hospitalizations given the focus of HMOs on centralized care through the use of a primary care provider.[3] This policy brief uses data from the 2007 California Health Interview Survey (CHIS 2007) to examine delays in fulfilling prescribed medications, delays in obtaining needed medical care, visits to emergency rooms, and the presence of a usual source of care among insured African Americans in public and commercial HMOs. We find that African-American HMO enrollees in California are more likely to delay obtaining needed medications and use the emergency room than other racial/ethnic groups in comparable HMO plans.

Several studies have documented the persistent racial health disparities in the United States which exist even among individuals with similar insurance.[4] One method proposed for reducing these health disparities is to increase access to and utilization of adequate primary care, including having a usual source of care.[5] Individuals receiving inadequate primary health care are more likely to report delays in needed medical services and higher utilization of emergency rooms.[6] Given the emphasis in most HMOs on regular access to primary care, appropriate prescription medication use and avoidance of costly emergency room care, it is important to understand whether there are persistent racial and ethnic disparities that might impact use of these services by African Americans.

African-American Enrollment in HMOs

Exhibit 1 shows the distribution of African-American HMO and non-HMO enrollees by type of insurance. HMO penetration in the African-American population is very high—67.3% of insured African Americans are enrolled in HMOs, compared to 64.7% of insured Latinos and 51.6% of whites. One-fourth of all insured African Americans are enrolled in commercial Kaiser Permanente.

THE PATIENT ADVOCATE

This policy brief was done at the request of and sponsored by the California Office of the Patient Advocate *www.opa.ca.gov.*

Exhibit 1

California HMO Enrollment by Ethnicity and Payer Source, 2007

	Commercial		Commercial Kaiser	Medicare		Medi-Cal and Other Public		Total	
	HMO	PPO	HMO	HMO	FFS	HMO	FFS	HMO	Non-HMO
White	24.1%	35.6%	15.2%	8.4%	8.6%	4.0%	4.2%	51.6%	48.4%
	3,779,000	5,584,000	2,382,000	1,311,000	1,350,000	622,000	649,000	8,094,000	7,583,000
African American	17.8%	14.7%	24.9%	7.9%	4.6%	17.0%	13.2%	67.3%	32.7%
	356,000	293,000	497,000	158,000	92,000	340,000	264,000	1,351,000	649,000
Latino	22.6%	15.6%	16.8%	4.0%	2.1%	21.7%	17.2%	64.8%	35.2%
	1,568,000	1,084,000	1,170,000	276,000	148,000	1,512,000	1,194,000	4,526,000	2,426,000
Asian/ Pacific Islander	28.5%	30.5%	17.1%	7.7%	4.2%	8.0%	4.0%	61.2%	38.8%
	1,159,000	1,237,000	693,000	314,000	169,000	323,000	164,000	2,489,000	1,570,000
Other	24.7%	21.7%	15.0%	6.5%	4.6%	15.2%	12.2%	60.9%	39.1%
	767,000	675,000	468,000	203,000	142,000	473,000	381,000	1,911,000	1,198,000
Total Enrollment	7,629,000	8,874,000	5,210,000	2,262,000	1,901,000	2,421,000	2,201,000	18,371,000	13,426,000

Notes: Survey respondents with missing information for HMO status are not reflected in enrollment figures.

Beneficiaries are categorized by their primary reported insurance coverage. For example, Medicare enrollees with concurrent Medi-Cal enrollment (i.e. "dual eligibles") are grouped into a Medicare HMO or Medicare FFS insurance category for the purposes of this study.

FFS - Fee for Service; HMO - Health Maintenance Organization; PPO - Preferred Provider Organization.

Source: 2007 California Health Interview Survey

Health Status and Service Use Among HMO Enrollees

Overall, African Americans enrolled in HMOs are more likely to report worse health status than white HMO enrollees, but similar or better health status compared to HMO enrollees who are Asian or Pacific Islander, Latino or other ethnicities (Appendix A). White (89.9%) and African-American (89.3%) HMO members report similar rates of having a usual source of care other than an emergency room, and both groups are more likely to report a usual source of care than Latinos, Asian/Pacific Islanders and other ethnicities enrolled in HMOs. Having a usual source of care was highest for commercially insured African Americans in Kaiser compared to all other ethnicities in Kaiser.

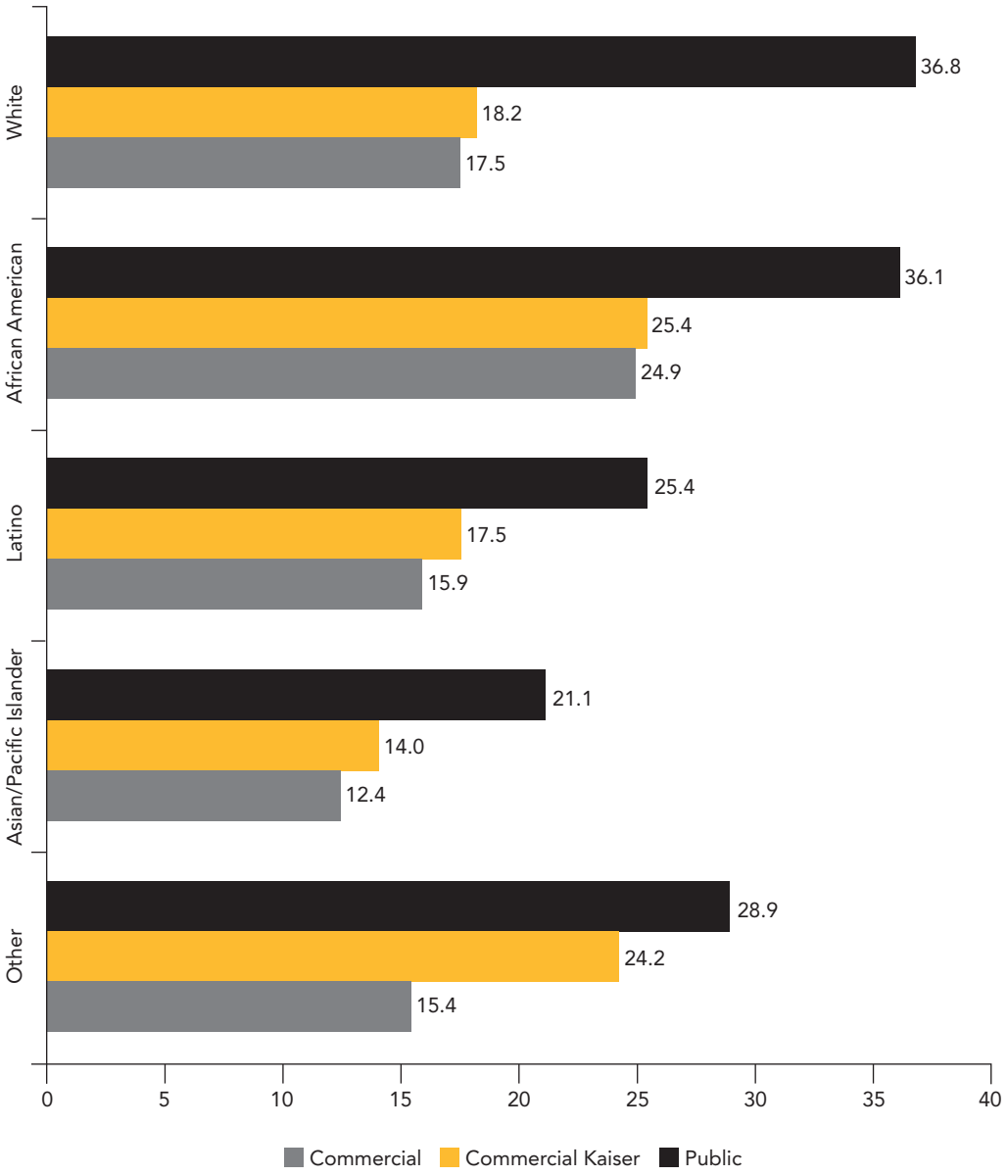
Interestingly, although Latinos report having worse health status than African Americans, they appear less likely to delay prescription drugs or other medical care, and use the emergency room more frequently. Latinos were also less likely to have seen a doctor in the past year or have a usual source of care when compared to African Americans with the same insurance status and delivery type. For additional information on health status, usual source of care, doctor visits and other service use, please consult Appendix A.

Exhibits 2 and 3 present the differences in ER use and prescription drug delays, respectively, for racial/ethnic groups enrolled in different types of insurance among the adult, non-elderly HMO population.[7]

Despite high rates of visiting the doctor in the past year (91.2%) and having a usual source of care (89.3%), African-American HMO enrollees as a whole were more likely to use the ER than other ethnic groups. Although ER use is similarly high for both whites and African Americans enrolled in public HMO plans (predominantly Medi-Cal), there is a distinct difference between African Americans and whites who are enrolled in commercial HMO plans (Appendix A). African Americans enrolled in commercial HMOs were more likely to use the ER (25.4% in Kaiser and 24.9% in other commercial plans) compared to other ethnic groups in commercial HMOs (Exhibit 2).

Percent of HMO Enrollees Who Report Having Visited an Emergency Room in the Past Year by Race/Ethnicity, Ages 18-64, 2007

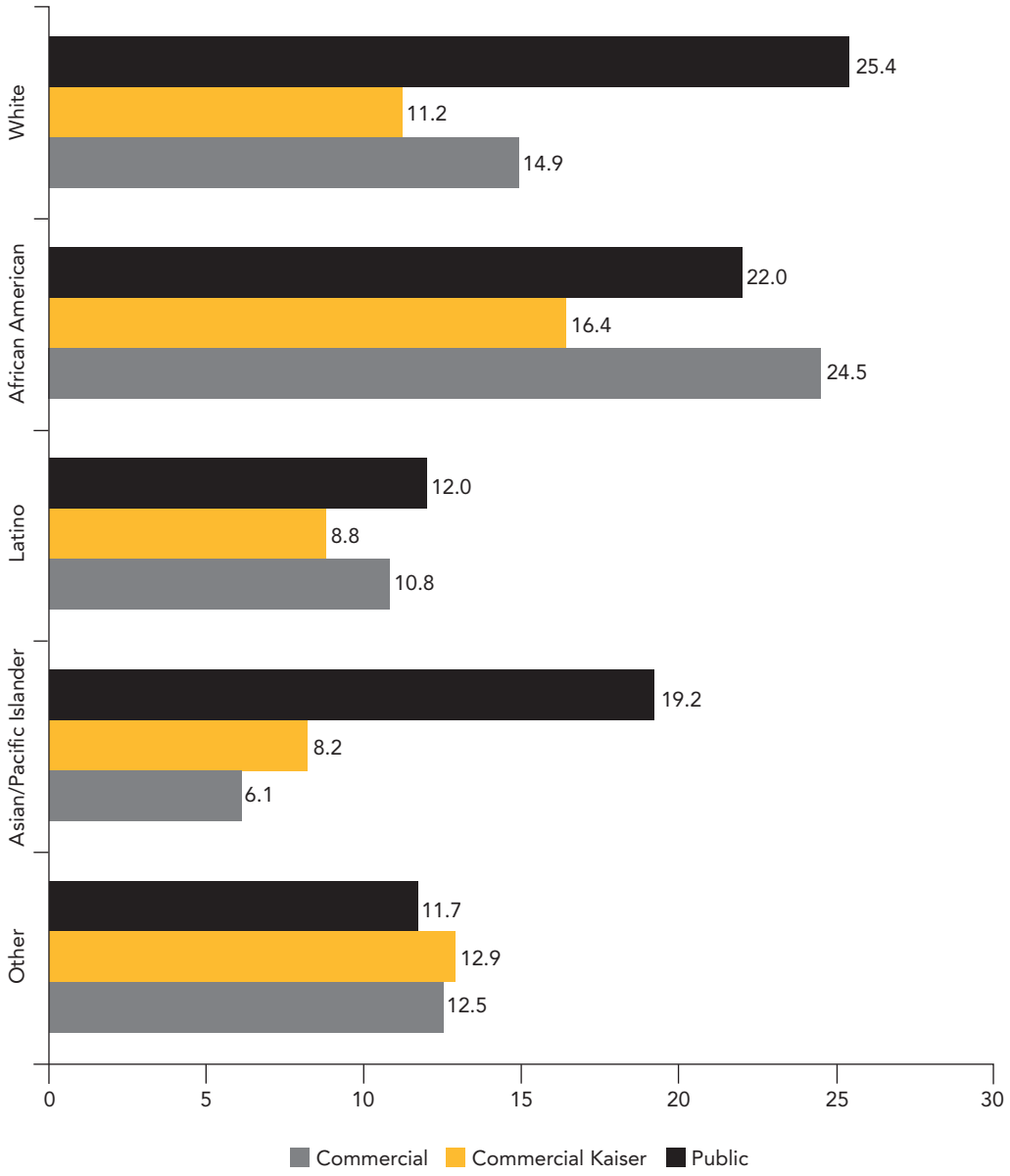
Exhibit 2



Source: 2007 California Health Interview Survey

Exhibit 3

Percent of HMO Enrollees Who Report Having Delayed Getting a Prescription Filled in the Past Year, Ages 18-64, 2007



Source: 2007 California Health Interview Survey

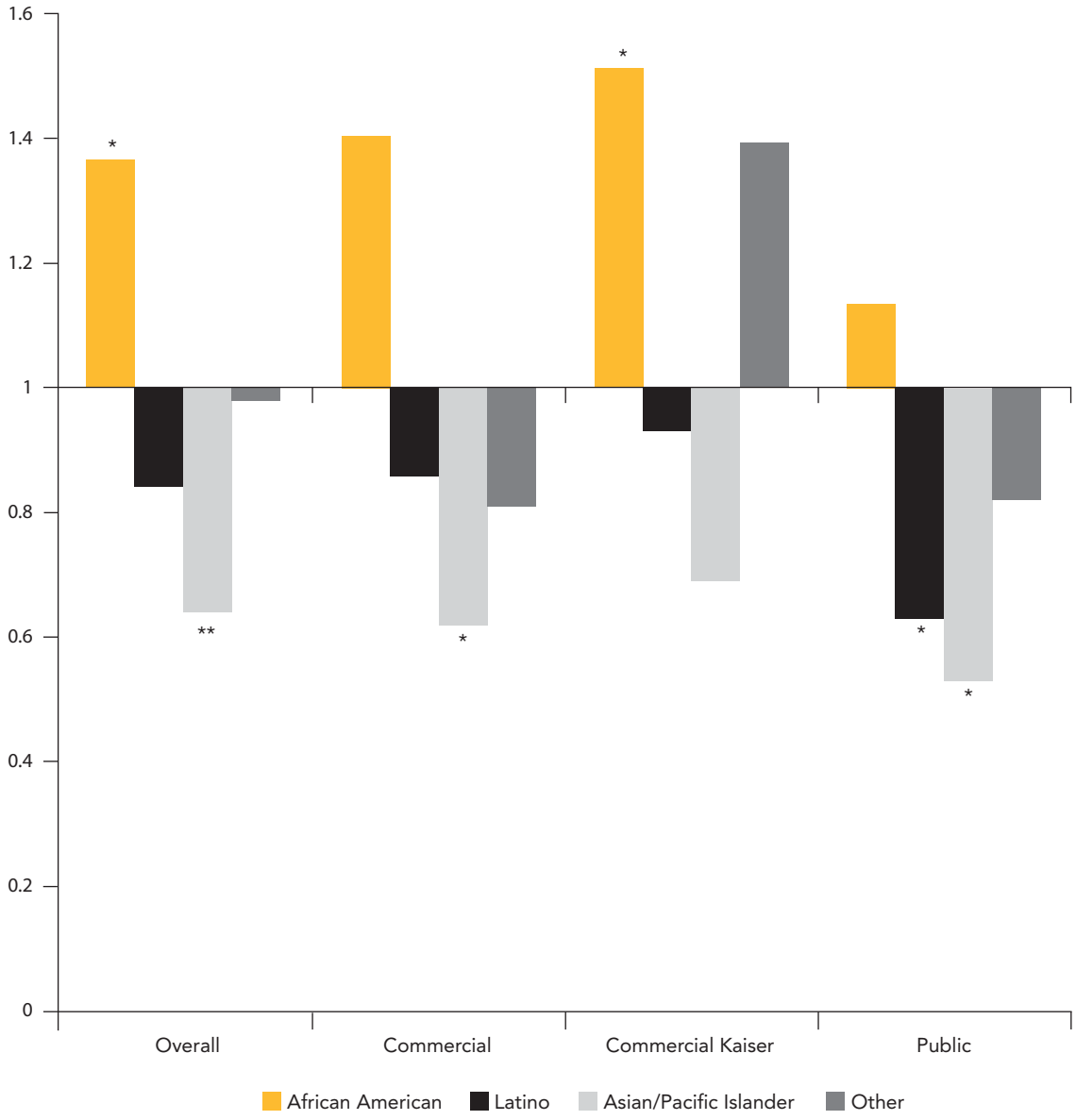
As shown in Exhibit 3, rates of prescription drug delays are about 5% higher for commercially insured African Americans in Kaiser compared to whites. However, a much larger disparity exists for African Americans enrolled in other commercial HMO plans compared to whites. African Americans have an almost 10% higher rate of delaying needed prescription medications than whites.

Do Disparities in Service Use Persist After Controlling for Demographic Differences?

The findings in Exhibits 2 and 3 indicate that African-American commercial HMO members are more likely to use emergency rooms and delay getting prescriptions filled compared to other ethnicities enrolled in commercial HMOs, despite having better health status overall than Latinos,

Logistic Regression Results Predicting ER Use Among HMO Enrollees—Overall and Stratified Models, Ages 18 to 64, 2007

Exhibit 4



*p<0.05
**p<0.01

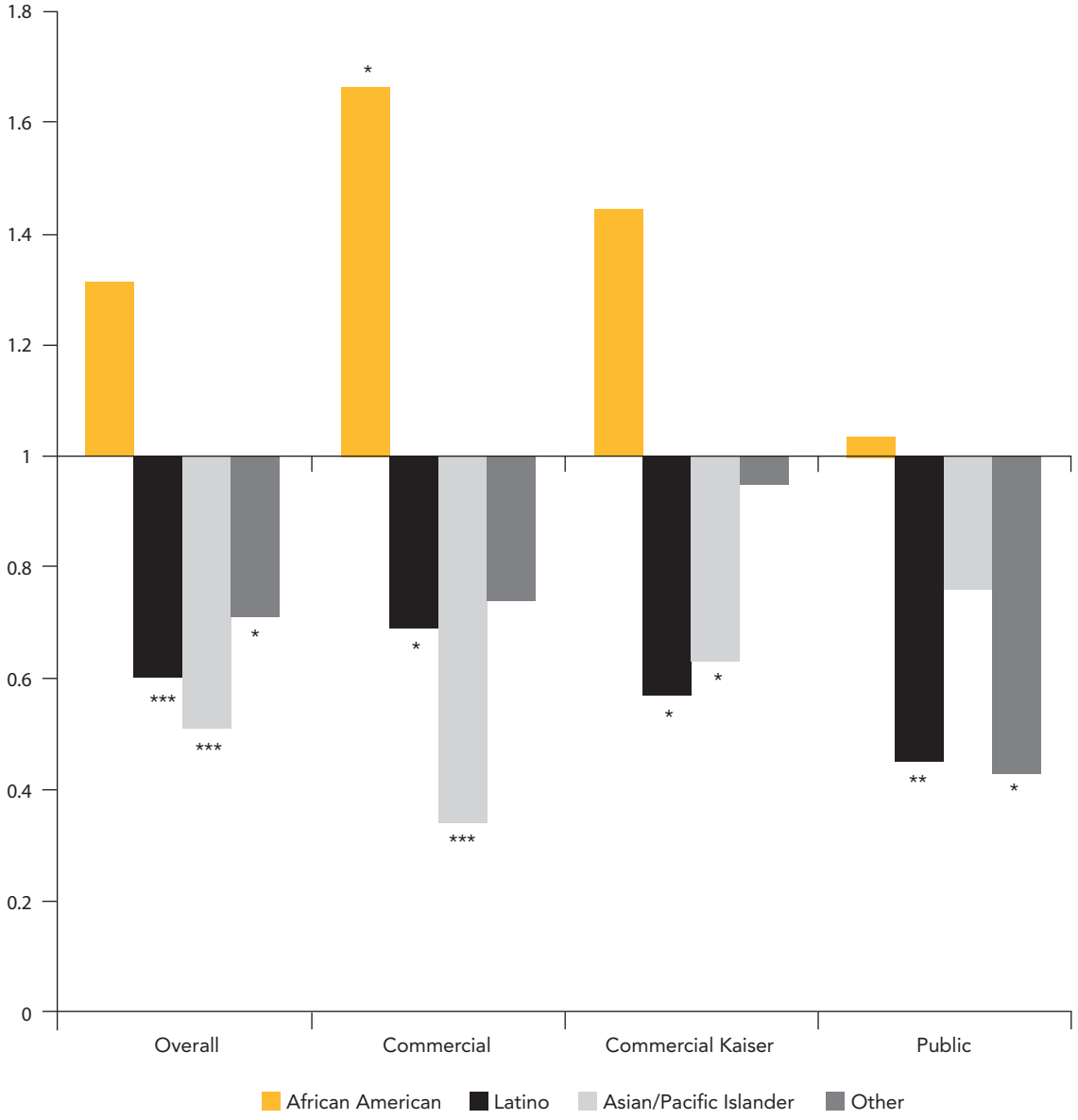
Note: Whites serve as the reference group (OR = 1.0)
Source: 2007 California Health Interview Survey

Asians or Pacific Islanders and other non-white ethnicities.

To determine if these differences persist after adjusting for sociodemographic and health differences between ethnic groups, we conducted logistic regression analyses to measure the association between race/ethnicity and higher ER use and delays in obtaining prescription drugs. The regression analyses controlled for type of insurance (commercial and public), chronic illness status, self-reported health status, usual source of care, and demographic variables including age, gender and income. These analyses were conducted for the adult, non-elderly population (18-64) enrolled in HMOs.

Exhibit 5

Logistic Regression Results Predicting Prescription Delays Among HMO Enrollees – Overall and Stratified Models, Ages 18 to 64, 2007



*p<0.05
**p<0.01
***p<0.001

Note: Whites serve as the reference group (OR = 1.0)
Source: 2007 California Health Interview Survey

Overall, African Americans are significantly more likely to use ERs compared to other races (p<0.01) even after controlling for sociodemographic differences (Exhibit 4). However, after controlling for all other variables, African-American race was not significantly associated with higher delays in obtaining prescription drugs (Exhibit 5). In the overall model, other predictors of ER use included fair/poor health status, having chronic illnesses, and being enrolled in a public HMO. Groups less likely to use the ER were Asians and Pacific Islanders and people between the ages of 35 and 64.

Demographic factors and health status may be related to the type of HMO insurance selected by an individual. Therefore, a second set of analyses was conducted to isolate the effects of demographics, health status and race/ethnicity among the separate insurance status groups. This stratified method used the same dependent variables and independent variables as the overall model, but controlled for insurance status and HMO enrollment by using a separate logistic regression model for each insurance group (commercial HMO, commercial Kaiser HMO and public HMO enrollees) to examine the association between ethnicity and either ER use or prescription drug delays within a specific type of insurance. African Americans were more likely to use the ER (OR = 1.51, $p<0.05$) when enrolled in commercial Kaiser and were more likely to delay prescriptions (OR = 1.66, $p<0.05$) when enrolled in other commercial HMO plans (Exhibits 4 and 5).[8]

Predictors of ER use in the commercial HMO model were fair/poor health status and chronic illness. In the commercial Kaiser HMO model, ER use was predicted by African-American race, fair/poor health status and chronic illness. Predictors of prescription delays in commercial HMO enrollees were African-American race, female gender, fair/poor health status and chronic illness. Female commercial Kaiser HMO enrollees were more likely to delay prescriptions, while enrollees with higher incomes and those aged 51 to 64 were less likely to delay prescriptions if enrolled in Kaiser. Having a self-reported usual source of care was not associated with ER use or prescription delays in any of the models.

Discussion

African Americans with HMO coverage are disproportionately more likely to use the emergency room than all other ethnic groups, even among those who report having a usual source of care and having commercial HMO coverage. This disparity suggests other barriers still exist for HMO-enrolled African Americans in California in terms of avoiding ER visits and delaying prescriptions. African Americans are also the most likely of any ethnic group to report seeing a doctor in the past year. While some of this health care use may have occurred in the ER, the high levels of self-reported usual source of care indicate that access barriers to primary care may not be the issue. However, the type or quality of primary care received, potential access barriers to specialty care or the high level of delays in obtaining needed prescriptions may result in increased ER use for the African-American HMO-enrolled population.

Other research has offered reasons why patients use emergency departments for non-urgent conditions, including dissatisfaction with their usual source of care, long waits to schedule appointments or be seen at a physician's office, belief in urgency of the condition and convenience of the emergency room.[9] Dissatisfaction with a usual source of care does not appear to be a problem for African Americans in California. Although CHIS 2007 did not collect information on self-rating of health care, data from CHIS 2003 showed that African-American HMO members with a usual source of care rate their total health care fairly high (a score of 8 out of 10).

There are several additional potential reasons for higher ER use and prescription delays in African-American commercial HMO enrollees that cannot be explained in these models. After controlling for chronic illness and fair/poor health status, the differences persist. Several studies have suggested that even commercially insured individuals with a usual source of care are being referred to use the ER by their physicians due to complicated cases, limited availability of alternative or specialty providers, convenience, greater availability of diagnostic tests and liability issues.[10]

In California, the largest proportion of African Americans in HMO plans are enrolled in Kaiser Permanente, which operates on an integrated staff model that could include ER, urgent care, on-site pharmacy and various other services on one hospital campus. This type of convenience and increased access to ER services could potentially impact patterns of use among Kaiser enrollees. Kaiser Permanente appears to be interested in continuity of care and racial/ethnic health disparities in the primary care environment. They recently implemented Community Health Initiatives with community health centers and other partners.[11]

Greater delays in obtaining prescription drugs for African-American commercial HMO enrollees could be due to high co-payments, limited pharmacy benefits, lack of access to in-network pharmacy services covered by the HMO, or perception of need by the patient.[12] We do not see similar prescription delays for African-American commercial Kaiser HMO enrollees, who may have better access to on-site pharmacy services compared to other commercial HMO enrollees. In addition, Kaiser has deployed several information technology solutions related to pharmacy dispensing and tracking since 1988 that could influence medication adherence and availability of prescribed drugs, in contrast to other HMOs that have to deal with extensive networks of retail and hospital pharmacies.[13]

Another factor that may be responsible for both increased ER use in the commercial Kaiser population and the prescription delays in the commercial HMO population could be the availability of a medical home. In this study, we used a usual source of care to approximate a medical home. The essential elements of the medical home concept include personal physician assignment, physician-directed medical practice, whole-person orientation, coordinated care, quality and safety, and enhanced access and adequate payment.[14] New information on the medical home from physician groups describes a large gap between the concept of the personal medical home and having a usual source of care.[15] Recent work suggests that less than one-third of patients in several large medical groups had a medical home, which contrasts greatly with self-reported usual source of care (Appendix A).[16] The importance of the medical home is gaining traction, with legislation currently being considered at both the state and national level. California Assembly Health Committee Bill AB 1542 and U.S. Senators Durbin and Burr's Medical Homes Act could introduce the concept of the medical home into law, encouraging health care providers to establish team-oriented medical homes.[17]

Alternatively, the differences between African Americans and other ethnicities in ER use among commercial Kaiser HMO enrollees and the delays in obtaining prescriptions by commercial HMO enrollees could be related to other physician practices and patient behaviors that are not easily measured. Previous work on health care disparities has explored issues of racial and gender bias in prescribing specific types of care.[18] If African-American patients in non-Kaiser HMOs are less likely to have access to nearby pharmacies and have to pay high out-of-pocket costs, they may be likely to delay obtaining prescription drugs despite having insurance. Higher ER use among African-American Kaiser enrollees may be reflective of familiarity and convenience with the Kaiser ER as an accessible alternative to waiting for a primary care visit or going to an urgent care center.

Policy Implications

In light of the existence of potential barriers to accessing appropriate medical care for African Americans with HMO coverage, greater effort is needed to identify ways

to encourage African Americans to obtain needed prescription drugs in a timely manner and avoid ER use if adequate primary or specialty care is available in their community at a reasonable cost. Primary care physicians should be familiar with alternative sources of care (such as urgent care, specialty referrals, and HMO network clinics or primary care physicians with extended hours) to decrease unnecessary ER use among their own patients.

HMO enrollees and physicians practicing in HMO settings could benefit from an educational campaign about the benefits of having a primary care provider (PCP), including why it is important to build a relationship between the patient and the PCP in creating a medical home and stressing continuity of visits with a PCP instead of waiting until a problem occurs due to delays in obtaining prescription drugs or other health care issues. In particular, empowering African-American HMO members to find a PCP with whom they are comfortable and can communicate effectively is vital in reducing reliance on emergency room use. In addition, efforts to decrease delays in obtaining needed prescription drugs in the African-American community will be helpful in improving health status and limiting ER use.

There is limited information available regarding the reasons for high ER use among the commercially insured HMO population in California. Targeted data collection activities through provider and patient surveys and stakeholder focus groups by individual health plans and facilities may be necessary to truly target interventions to decrease unnecessary ER use among commercially insured African-American HMO enrollees. This type of data could enhance our understanding of differences in practice patterns, patient compliance with specialty and ER referrals, and the ability of HMO enrollees to obtain needed care and prescription drugs in a timely, cost-effective manner.

About CHIS/Data Source

The California Health Interview Survey is conducted by the UCLA Center for Health Policy Research in collaboration with the California Department of Public Health, the Department of Health Care Services and the Public Health Institute. For additional information on CHIS, visit *www.chis.ucla.edu*.

Author Information

Dylan H. Roby, PhD, is a research scientist in the UCLA Center for Health Policy Research and adjunct assistant professor in the UCLA School of Public Health, Department of Health Services. Gina L. Nicholson, MPH, is a senior research associate in the UCLA Center for Health Policy Research. Gerald F. Kominski, PhD, is associate director of the UCLA Center for Health Policy Research and professor in the UCLA School of Public Health, Department of Health Services.

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Appendix A

Comparison of Health Status and Self-Reported Service Use Among HMO Enrollees by Ethnicity and Payer Source, All Ages, 2007

	Health Status	Service Use				
	Fair or Poor Health	Delays in Getting Prescriptions	Other Medical Care Delays	Emergency Room Visits	Any Doctor Visit in the Past Year	Has a Usual Source of Care Other Than ER
White						
Commercial	6.8%	14.8%	14.8%	17.9%	87.5%	88.5%
Commercial Kaiser	6.6%	11.1%	12.7%	18.6%	87.5%	92.4%
Medicare	28.4%	10.1%	8.6%	27.2%	94.1%	92.7%
Medi-Cal and Other Public	14.7%	23.1%	12.3%	29.3%	87.0%	82.7%
Total HMO	10.9%	13.1%	13.0%	20.5%	88.5%	89.9%
African American						
Commercial	12.3%	24.4%	16.6%	23.5%	90.6%	86.7%
Commercial Kaiser	7.7%	16.2%	9.8%	24.7%	92.3%	93.6%
Medicare	45.3%	14.7%	17.9%	34.7%	90.7%	91.7%
Medi-Cal and Other Public	15.9%	20.7%	10.0%	30.2%	90.7%	84.5%
Total HMO	15.4%	19.0%	12.6%	26.9%	91.2%	89.3%
Latino						
Commercial	15.5%	10.8%	9.5%	16.3%	83.4%	79.1%
Commercial Kaiser	14.9%	8.7%	10.0%	17.8%	84.1%	88.8%
Medicare	56.6%	9.4%	8.0%	23.6%	90.3%	86.8%
Medi-Cal and Other Public	17.5%	11.1%	8.9%	19.8%	85.0%	83.1%
Total HMO	18.5%	10.1%	9.3%	18.3%	84.5%	83.4%
Asian/Pacific Islander						
Commercial	10.7%	6.1%	9.9%	11.6%	82.2%	87.1%
Commercial Kaiser	9.5%	8.0%	9.3%	13.7%	83.6%	87.3%
Medicare	42.8%	9.8%	8.0%	17.8%	88.0%	88.0%
Medi-Cal and Other Public	20.8%	20.0%	14.4%	18.3%	85.7%	73.5%
Total HMO	15.7%	8.5%	10.1%	13.8%	83.8%	85.5%
Other						
Commercial	15.9%	12.4%	12.9%	19.5%	83.7%	81.1%
Commercial Kaiser	15.8%	12.8%	8.7%	21.8%	82.9%	84.2%
Medicare	43.2%	13.7%	12.8%	27.9%	87.3%	87.8%
Medi-Cal and Other Public	18.3%	9.2%	7.2%	21.0%	84.2%	78.9%
Total HMO	19.4%	12.2%	10.4%	21.3%	84.0%	82.0%

Source: 2007 California Health Interview Survey

Logistic Regression Results and Odds Ratios, Ages 18-64, HMO Enrollees, 2007

Appendix B

	ER Use	ER Use	ER Use	ER Use	Delay in Prescriptions	Delay in Prescriptions	Delay in Prescriptions	Delay in Prescriptions
	Overall	Commercial HMO	Commercial Kaiser	Public HMO	Overall	Commercial HMO	Commercial Kaiser	Public HMO
Race/Ethnicity								
White	ref	ref	ref	ref	ref	ref	ref	ref
African American	1.36*	1.40	1.51*	1.13	1.31	1.66*	1.44	1.03
Latino	0.84	0.86	0.93	0.63*	0.60***	0.69*	0.57*	0.45**
Asian	0.64**	0.62*	0.69	0.53*	0.51***	0.34***	0.63*	0.76
Other race	0.98	0.81	1.39	0.82	0.71**	0.74	0.95	0.43*
Female	1.04	1.16	1.05	0.77	1.56***	1.89***	1.54***	0.97
Fair or Poor Health Status	1.76***	1.54*	1.97***	1.74**	1.73***	2.10***	1.34	1.46
One or More Chronic Conditions	1.76***	1.86***	1.62***	1.76***	1.40***	1.55***	1.22	1.17
Ages								
18 - 34	ref	ref	ref	ref	ref	ref	ref	ref
35 - 50	0.75**	0.69*	0.69*	0.99	1.15	1.35	0.68	1.73
51 - 64	0.60***	0.52***	0.58**	0.82	0.87*	0.93	0.56***	1.79
Income								
<100%FPL	ref	ref	ref	ref	ref	ref	ref	ref
100 - 199% FPL	1.00	0.94	0.72	1.05	1.14	1.56	0.44	1.19
200% - 399% FPL	1.18	1.14	0.81	1.39	1.19	1.57	0.42	1.69
400%+ FPL	1.25	1.19	0.95	1.20	0.95	1.61	0.30**	0.81
Has a Usual Source of Care	1.16	1.04	1.45	1.20	1.16	1.14	0.94	1.46
Type of HMO Insurance								
Commercial HMO	ref	n/a	n/a	n/a	ref	n/a	n/a	n/a
Commercial Kaiser	1.13	n/a	n/a	n/a	0.77*	n/a	n/a	n/a
Public HMO	1.91***	n/a	n/a	n/a	1.18	n/a	n/a	n/a

*p < 0.05

**p < 0.01

***p < 0.001

Source: 2007 California Health Interview Survey

10960 Wilshire Blvd., Suite 1550
Los Angeles, California 90024

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Editor-in-Chief: E. Richard Brown, PhD

Phone: 310-794-0909
Fax: 310-794-2686
Email: chpr@ucla.edu
Web Site: www.healthpolicy.ucla.edu

Endnotes

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