Black Physicians and Ambulatory Care

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THE MEDICAL CARE PRACTICES OF BLACK and other minority physicians have received little attention in the literature. Most of the recent literature describing black physicians is focused on their geographic and functional distribution and selected characteristics (1-3). Moreover, few data have been reported concerning the characteristics of patients visiting black physicians. Therefore, in this report I present data from the 1975 National Ambulatory Medical Care Survey (NAMCS) regarding visits of ambulatory patients to black and nonblack physicians. These data provide a new and important source of information about black physicians that is available for health manpower planning and policy development.

Methodology

In 1974, the Office of Health Resources Opportunity (OHRO) requested the National Center for Health Statistics (NCHS) to draw a supplemental sample of black physicians in order to obtain additional information about their medical practices. As a result, the 1975 design was modified so that an oversample of black physicians would be selected. The NAMCS uses a multistage probability design that includes samples of primary sampling units (PSUs), physician practices within PSUs, and patient visits within physician practices. A description of the NAMCS and the methodology used has been published (4).

The physician universe for the 1975 NAMCS was

composed of duly licensed doctors of medicine and doctors of osteopathy currently in practice who spent some time seeing ambulatory patients in an office and who met the following criteria (4): (a) office based, as defined by the American Medical Association and the American Osteopathic Association, (b)principally engaged in patient care activities, (c) nonfederally employed, and (d) not in the specialties of anesthesiology, pathology, clinical pathology, forensic pathology, radiology, diagnostic radiology, pediatric radiology, or therapeutic radiology.

The sample physicians were screened further at the time of the survey to ensure that they met all the preceding criteria. Of 493 black physicians drawn for the supplemental sample, 49 (9.9 percent) did not meet all these criteria and therefore were ineligible

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			Estin	nated percent				
Base (in thousands)	0.05	0.10	0.20	0.40	0.60	0.80	0.90	
	Black physicians							
100	91.0	62.7	41.8	25.6	17.1	10.4	7.0	
200	64.4	44.3	29.5	18.1	12.1	7.4	4.9	
500	40.7	28.0	18.7	11.4	7.6	4.7	3.1	
1,000	28.8	19.8	13.2	8.1	5.4	3.3	2.2	
2,000	20.4	14.0	9.3	5.7	3.8	2.3	1.6	
5,000	12.9	8.9	5.9	3.6	2.4	1.5	1.0	
			Nonbl	ack physicians				
1,000	92.1	63.4	42.3	25.9	17.3	10.6	7.0	
2,000	65.1	44.8	29.9	18.3	12.2	7.5	5.0	
5.000	41.2	28.4	18.9	11.6	7.7	4.7	3.2	
10,000	29.1	20.1	13.4	8.2	5.5	3.3	2.2	
20,000	20.6	14.2	9.5	5.8	3.9	2.4	1.6	
50,000	13.0	9.0	6.0	3.7	2.4	1.5	1.0	
00,000	9.2	6.3	4.2	2.6	1.7	1.1	0.7	
00,000	4.1	2.8	1.9	1.2	0.8	0.5	0.3	

for the study; 78 (17.6 percent) of the remaining sample were nonrespondents, and 52 (14.2 percent) who participated in the NAMCS survey were temporarily not in practice during their randomly assigned reporting periods because of vacation, illness, or other reasons. Thus, a total of 314 black physicians provided patient data for the survey. Of the total 3,507 physicians selected for the survey, 438 (12.5 percent) were ineligible; 597 (19.5 percent) of the remaining sample were nonrespondents, and 391 (15.8 percent) who participated in the survey did not see any patients during their assigned reporting period. Thus, for the total sample, 2,081 physicians provided patient data.

The figures in the tables in this report are estimates of the numbers and percentages of all ambulatory patient visits during 1975 to all U.S. black and nonblack physicians who met the specified criteria. Since these estimates are based on sample survey data, they are subject to sampling error. The degree of reliability of the figures is related to the size of the estimate—the smaller the estimate, the larger the standard error is likely to be. Table 1 shows relative standard errors for both the black and nonblack samples. Since the number of patient visits for black physicians is much smaller than the totals for the nonblack sample, the data should be interpreted with caution—especially when the number of patient visits is small and the relative standard error is large.

The data cited here do not allow differentiation among the nonblack physicians. Thus, it is not possible to compare black and white physicians directly. However, according to 1970 data from the Census Bureau (2), more than 95 percent of the nonblack physicians were white.

Results

Patients served. In relative percentages, black physicians are far more likely to serve black patients than nonblack physicians. As shown in the following table, about 87 percent of the visits to black physicians were made by black patients, whereas only about 7 percent of the visits to nonblack physicians were made by black patients.

	Visits to—							
Color of	Black pl	hysicians	Nonblack p	hysicians				
patients	Number	Percent	Number	Perceni				
White	617,883	10.54	508,053,828	90.44				
Black	5,097,581	86.95	41,618,333	7.41				
Other	147,114	2.51	12,065,319	2.15				

Yet, in absolute terms, most black patients visit nonblack physicians; visits by blacks to nonblack physicians totaled more than 41 million, and to black physicians they totaled about 6 million. This large discrepancy between the relative percentages and the absolute numbers of visits exists because black physicians constitute only a small percentage of all physicians. According to the 1970 Census Bureau data, there were only about 6,000 black physicians, both ambulatory care and others, which amounted to approximately 2.1 percent of all physicians.

Location of practice. About 25 percent of the black population lives in nonmetropolitan areas (5). Black physicians are especially needed in the nonmetropolitan areas that are highly populated with blacks. Although white physicians are also in short supply in nonmetropolitan areas, the scarcity of black physicians is even greater. According to estimates, about 4 percent of the black physicians live in nonmetropolitan areas (1). Lezotte, (6) reported that all 236

Table 2. Visits to black and nonblack physicians, by color of patients and location of physicians' practices, 1975

black physicians in Michigan were located in standard metropolitan statistical areas (SMSAs). In 1975, slightly more than 8 percent of visits by blacks to black physicians and 28 percent of visits by whites to nonblack physicians occurred in nonmetropolitan areas (table 2).

Types of practice. There is some evidence that the provision of group practice opportunities helps to attract physicians to rural areas (7). However, whether group practice would be as effective in attracting black physicians is open to question because the data in this and other studies show that most black physicians are in solo practice. Table 3 shows that 17 percent of visits to black physicians and 40 percent of visits to nonblack physicians were to physicians in partnership or group practice arrangements.

Physician specialties. As shown in table 4, 71 percent of the patient visits were to black physicians and

		Location of practice							
Color of patients	Metropo	litan area	Nonmetropol	itan area					
	Number	Percent	Number	Percent					
<u> </u>		Black phy	sicians						
White	. 583,491	94.43	34,392	5.57					
Black	4,679,145	91.79	418,436	8.21					
Other	. 147,114	100.0		•••••					
		Nonblack p	hysicians						
White	. 369,081,473	72.65	138,972,355	27.35					
Black	. 28,842,477	69.30	12,775,856	30.70					
Other	. 10,351,009	85.79	1,714,310	14.21					

Table 3. Visits to physicians, by type of practice and colorof physician, 1975

Type of practice	Black pl	nysicians	Nonblack physicians			
	Number	Percent	Number	Percent		
Solo Partnership	4,840,563	82.57	334,713,513	59.59.		
or group	1,022,015	17.43	227,023,967	40.41		
Total visits.	5,862,578	100.0	561,737,480	100.0		

			Visits		
	Black ph	vsicians	Nonblack physicians		
Specialty	Number	Percent	Number	Percent	
General and family practice	2,819,295	48.09	231,840,745	41.27	
Internal medicine	667,250	11.38	61,450,070	10.94	
Pediatrics	682,903	11.65	46,001,439	8.19	
Other medical specialties	118,734	2.03	31,123,449	5.54	
General surgery	440,035	7.51	40,851,939	7.27	
Obstetrics and gynecology	685,449	11.69	47,390,836	8.44	
Other medical specialties	368,911	6.29	78,711,152	14.01	
Psychiatry	60,434	1.03	14,745,150	2.62	
Other	19,567	0.33	9,622,700	1.71	

NOTE: Percentages do not add to 100 because of rounding.

60 percent were to nonblack physicians engaged in one of the three primary specialties—general and family practice, internal medicine, and pediatrics.

Other characteristics. Preliminary analysis of other characteristics of patient visits to black and nonblack

physicians revealed few differences large enough to be meaningful. If the degree of error likely to occur because of sampling (table 1) is considered, most of the percentage estimates were so similar that the slight differences could be expected to occur by chance. For example, about 22 percent of the patient

Table 5. Visits to black and nonblack physicians, by seriousness of patients' conditions and color of patients, 1975

Seriousness of conditions	Total		White pa	tients	Other patients	
Seriousness of conditions	Number	Percent	Number	Percent	Number	Percent
			Black phys	icians		
Serious or very serious	1,299,193	21.65	120,269	19.46	1,148,924	21.91
Slightly serious	2,000,050	34.12	208,491	33.74	1,791,559	34.16
Not serious	2,593,335	44.24	289,123	46.79	2,304,212	43.93
Total	5,862,578	100.01	617,883	99.99	5,244,695	100.00
	* <u></u>		Nonblack phy	/sicians		
Serious or very serious	105,711,467	18.82	96,431,618	18.98	9,279,849	17.29
Slightly serious	181,696,723	32.35	163,206,727	32.12	18,489,996	34.44
Not serious	274,329,290	48.84	248,415,483	48.90	25,913,807	48.27
Total	561,737,480	100.01	508,503,828	100.00	53,683,652	100.00

NOTE: Some percentages do not add to 100 because of rounding.

Table 6. Visits to black and nonblack physicians, by duration of visit and sex of	patients, 197	975
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Duration of visit	Female	patients	Male	patients
(minutes)	Number	Percent	Number	Percen
		Black physicia	ns	
)	8,396	0.22	8,885	0.44
-5	504,208	13.06	289,936	14.49
–10	1,380,462	35.75	760,403	38.00
1–15	1,039,055	26.91	555,000	27.73
6–30	800,215	20.72	331,063	16.54
1–60	119,565	3.10	51,754	2.59
1 or more	9,541	0.25	4,095	0.20
Total	3,861,442	100.01	2,001,136	99.99
		Nonblack physici	ans	
	3,434,625	1.01	3,329,298	1.49
-5	54,391,735	16.04	36,543,683	16.41
–10	105,612,809	31.15	69,688,118	31.29
1–15	93,449,183	27.56	56,920,702	25.56
6–30	64,169,629	18.93	42,407,912	19.04
1–60	16,584,400	4.89	12,775,858	5.74
1 or more	1,392,217	0.41	1,037,311	0.47
Total	339,034,598	99.99	222,702,882	100.00

NOTE: Some percentages do not add to 100 because of rounding.

Table 7.	Disposition	of visits	to	black an	nd nonblack	physicians.	by	sex of	patients,	1975
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	Total		Female pati	ients	Male pati	ents
Disposition	Number	Percent	Number	Percent	Number	Percen
			Black physician	s		
None	538,834	9.19	314,801	8.15	224,033	11.20
Return at a specific time	3,927,652	67.00	2,709,972	70.18	1,217,680	60.85
Return if needed	1,140,109	19.45	695,496	18.01	444,613	22.22
Telephone followup	115,882	1.98	71,870	1.85	44,012	2.20
Refer	173,836	2.97	103,103	2.67	70,733	3.53
Return	22,566	0.38	16,061	0.42	6,505	0.33
Admit to hospital	121,877	2.08	81,014	2.10	40,863	2.04
Other	35,295	0.60	20,093	0.52	15,202	0.76
			Nonblack physicia	ans		
None	74,003,187	13.17	39,471,839	11.64	34,531,348	15.51
Return at a specific time	331,291,115	58.98	209,837,844	61.89	121,453,271	54.54
Return if needed	125,490,075	22.34	73,109,114	21.56	52,380,961	23.52
Telephone followup	20,717,710	3.69	12,444,587	3.67	8,273,123	3.71
Refer	15,868,632	2.82	8,754,550	2.58	7,114,082	3.19
Return	5,041,496	0.90	2,852,616	0.84	2,188,880	0.98
Admit to hospital	11,939,760	2.13	6,761,141	1.99	5,178,619	2.33
Other	5,181,921	0.92	2,970,693	0.88	2,211,236	0.99

NOTE: Percentages do not add to 100 because of more than 1 disposition for some visits.

visits to black physicians were classified by the physicians as serious or very serious compared with about 19 percent of the patient visits to nonblack physicians (table 5). The percentages were also similar for black and nonblack physicians according to color of patients.

Black and nonblack physicians spent similar amounts of time in visits with patients. The differences were negligible. For example, about 49 percent of visits by females and 52 percent of visits by males to black physicians were estimated to take 10 minutes or less, compared with about 48 and 49 percent, respectively, for nonblack physicians (table 6). By far the most common disposition of visits by both black and nonblack physicians was having the patient "return at a specific time;" this disposition was slightly more likely by black physicians for both male and female patients (table 7). The differences for the other percentage estimates were also negligible when the relative standard errors (table 1) were considered.

Conclusions

Based on data from the 1975 National Ambulatory Medical Care Survey (NAMCS), the majority of visits to black physicians are made by nonwhite, mostly black, patients. Nonblack physicians are visited mostly by white patients. Information based on NAMCS data on patient visits supports the findings of other studies that black physicians are more likely to be in solo practice and to practice in metropolitan areas, and they are somewhat more likely to be in one of the primary care specialties. Concerning seriousness of patients' illness, duration of visits, and disposition of visits, the differences between black and nonblack physicians are negligible.

References

- Gray, L. C.: The geographic and functional distributions of black physicians: Some research and policy conclusions. Am J Public Health 67: 519-526, June 1977.
- Health Resources Administration: Minorities and women in the health field. DHEW Publication No. (HRA) 76–22. U.S. Government Printing Office, Washington, D. C., 1975.
- 3. Thompson, T.: Selected characteristics of black physicians in the United States, 1972. JAMA 229: 1758–1761, Sept. 23, 1974.
- National Center for Health Statistics: The National Ambulatory Medical Care Survey: 1973 summary. United States, May 1973–April 1974. DHEW Publication No. (HRA) 76–1772. Rockville, Md., 1975.
- U.S. Bureau of the Census: United States census of population, 1970: Occupational characteristics. PC(2)-7A. U.S. Government Printing Office, Washington, D.C., June 1973.
- 6. Lezotte, L. W.: Location of black physicians in Michigan: A summary report. Paper presented at annual meeting of the Association of American Medical Colleges, San Francisco, November 1976.
- 7. Madison, D. L.: Recruiting physicians for rural practice. Health Serv Rep 88: 758-762, October 1973.