

A study was made of the use of pediatric service in the clinics of a Kaiser Health Plan facility. Interesting differences were found between whites and Negroes which the investigators describe in detail. They also stress the possible relationship of the utilization patterns to availability of clinics during the day and in the evening. Further research on differential patterns of use of service in prepayment health plans is indicated.

SOCIAL CLASS DIFFERENCES IN UTILIZATION OF PEDIATRIC SERVICES IN A PREPAID DIRECT SERVICE MEDICAL CARE PROGRAM

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OBSERVATIONS that life expectancy and mortality are related to social class as measured by occupation, income, education, residence, and other indexes have been reported for over a century.¹⁻⁴ While the health experience of nonwhites in the United States has been adverse when compared with that of whites, it is suggested this is due to differences in social class.⁵

The National and California Health Surveys have noted the adverse health experience of the lower socioeconomic groups in terms of such factors as morbidity, chronic conditions, and days of disability.⁶⁻⁸ In Regionville, Koos found that the higher the social class the lower the incidence of disabling and nondisabling illnesses and of time lost due to illness.⁹ Social class differences in mental illness have also been reported.¹⁰

The limited use of health services by persons of lower income or education, or by members of families in which the

occupation of the father is of an unskilled or semiskilled nature, has been documented by health surveys.⁶⁻⁸ Recent studies, particularly those of Graham in Butler County, Pennsylvania,¹¹ and Willie in Syracuse, N. Y.,¹² indicate that differences between social classes in their utilization of medical care may be narrowing. However, Ross studied data of the National Health Survey for the period 1957-1959 and observed a consistent relationship between visits to a physician and either family income or education of household head.¹³ Of these two variables, education appeared to have a greater influence. In studying the *type of service* received, Ross noted that families with less education or lower income had a smaller proportion of visits for preventive medical services such as prenatal and postnatal care, general checkups, and immunizations than did upper education or income groups.

Three decades ago, the Committee on

the Costs of Medical Care concluded that placing medical costs on a group prepayment basis, and providing services by organized groups of physicians, would tend to lessen the differential between social classes in their use of medical care.¹⁴ Prepayment has been shown to affect utilization. Studies of the Health Information Foundation show that hospital admission rates are higher for persons with insurance than for persons without insurance.¹⁵ A recent California survey indicated that whether women had prepaid insurance was a more important factor than race or socioeconomic status in their utilization of cervical cytological screening tests.¹⁶

Not all the evidence points to broad usage of health services under prepayment plans. In the Windsor, Ontario, prepaid health plan, one-third of the enrollees failed to receive some physician care during the year.¹⁷ Schwartz found in his study of 12 prepaid group plans that although preventive benefits were generally covered by the contract, the plans made little effort to encourage their use.¹⁸

Purpose

Under a prepayment plan which offers physician care in the office for diagnosis and treatment, as well as preventive care, are there differences in the use of services by individuals of varying socioeconomic background? Is the removal of the economic barrier enough to diminish class differences in the utilization of medical care services? When preventive services are included under a health plan contract, are they used equally by all socioeconomic groups?

Our observations suggested differences might exist, related to ethnic group and social class, in enrollees' use of children's medical care services at the Kaiser Foundation Health Plan facility in Oakland, Calif. The initial study was undertaken using this population of

pediatric patients because of our interest in these differences as they related to child care, our detailed familiarity with these particular clinics, and their availability for study. Specifically this pilot study at the Kaiser pediatric facility in Oakland was undertaken to determine whether social, educational, and ethnic characteristics of the families appear to influence the utilization of prepaid medical services for children. Are there different patterns of utilization related to the type of clinic visited, time when care is sought, and type of service sought? If different utilization patterns were demonstrated, further studies to determine motivational and situational influences on utilization would be called for in this and other populations.

Kaiser Foundation Health Plan Pediatric Services

At Oakland, outpatient care to Kaiser Foundation Health Plan subscribers is rendered at a large, central clinic staffed by 125 Permanente Medical Group physicians organized in specialty departments attached to a 365-bed Kaiser Foundation Hospital.

The pediatric department offers outpatient care primarily in two sections: (1) Appointment Clinic, and (2) Non-appointment Clinic (called Drop-In Clinic) for patients with acute and current illness. There are different waiting and examining rooms for the appointment and nonappointment sections, to separate the sick and well children. When these clinics are closed, pediatric care is available in the hospital's emergency room. Table 1 compares the characteristics of these clinics.

In the appointment section, appointments are at a specific time with a specific pediatrician. The pediatricians there are all board-certified or board-eligible, and usually practice only at the Medical Group. Parents are encouraged to select a pediatrician for their

Table 1—Comparison of pediatric clinics

Characteristics of patient visit	Appointment clinic	Nonappointment clinic (drop-in)	Hospital emergency room
Training of M.D.	Fully trained pediatrician; board certified or eligible	Fully or partially trained physician	Fully or partially trained physician
Time allocated	20-minute appointments	Time proportional to problem; 6 pt./hr/M.D. maximum	Time proportional to problem
Preventive medical care	Included	Usually not included	Usually not involved
Laboratory services	Readily available	Readily available	Available subject to delays by emergencies
Complete medical record	Present for use by M.D.	Not present; made available if summoned by M.D.	Not present; made available if summoned by M.D.
Continuity	Usually seen by regular pediatrician	Usually not seen by regular pediatrician	Usually not seen by regular pediatrician
Clinic hours	9 a.m.-5 p.m. weekdays, Saturday mornings	9 a.m.-8:30 p.m. every day of the year	Daily
Physical facilities	Attractive new waiting and examining areas	Separate from and identical to appointment clinic	Typical busy hospital ER

children and have that doctor render nonacute medical care by appointment.

When a child has an acute illness, parents are usually advised to have the child seen in the drop-in clinic for the specific problem. The clinic is staffed in varying proportions by both full-time pediatricians and part-time physicians. Most patients are seen in order of their arrival at the clinic by the doctors on duty. Sometimes a parent has arranged for the child to see his own pediatrician. Preventive medical care, unless specifically related to the presenting problem, is generally not within the function of this clinic. As the table shows, in the drop-in clinic, a patient

is usually seen solely for a specific presenting complaint, without the complete medical record, and for a shorter period of time. The physician may be the regular pediatrician but most often is some other physician who may be fully or partially trained in pediatrics. In the emergency room, pediatric medical care is rendered by the resident or attending pediatrician on duty.

Method

Interviews were conducted with the adults accompanying all children enrolled in the health plan who visited the pediatric appointment and nonappoint-

ment clinics or the emergency room. During the four days of the survey in June, 1964, only six interviews (<1 per cent) were missed or the adult refused to answer the questions. The interview was designed to be completed in less than ten minutes to avoid delay and interference with patient care and clinic operation. Questions asked of the adult accompanying the child included: his relationship to the child; reason why the child was seeing the doctor; length of time of illness; length of time from onset of illness to first visit to physician; interval since last visit to the two clinics and emergency; mode of transportation; father's education, occupation, and employment status; mother's education, employment status, and age. Other information such as child's birth date, sex, and enrollment status were obtained from the membership card. Ethnic group was obtained by observation.

Hollingshead's Two Factor Index of Social Position was used to determine the social class.¹⁹ The Hollingshead Index assigns certain weights to seven occupational and educational groups. The resulting scores are classified into five social classes, with Social Class I being the highest.

The Kaiser Foundation Health Plan does not maintain information pertaining to occupation, education, and ethnic

group of its members. Therefore, these characteristics of the base population from which the survey was taken are not known. Because of this, incidence rates of utilization cannot be calculated. Therefore, the study is limited to an analysis of utilization patterns among those patients who visited the various pediatric clinics during the four-day interview period. Any observed differences were tested for their significance by use of the chi-square statistic.

The data were collected on an individual visit basis and in general will be reported in this way. A total of 728 visits were included for study. They were made by 705 children representing 581 families.

Findings

Patient Characteristics by Clinic

Table 2 shows the distribution by type of clinic of the 728 pediatric visits. Half the visits were to the drop-in clinic, 47 per cent to the appointment clinic, and 3 per cent to the emergency room. Because of the small number of emergency visits, and since emergency visits are an extension of drop-in visits after hours, for purposes of comparison emergency visits were combined with drop-in visits.

The sex, age, social class, and ethnic group distribution by type of clinic is

Table 2—For the 728 study visits, pediatric clinic visited by day of the week, number, and per cent

Clinic	Total visits		Number of visits on:			
	No.	%	Wed.	Thurs.	Fri.	Sat.
Pediatric appointment	339	46.6	65	104	110	60
Pediatric drop-in	367	50.4	106	93	91	77
Emergency room	22	3.0	3	7	7	5
Total visits	728	100.0	174	204	208	142
Per cent by day	100.0	—	23.9	28.0	28.6	19.5

Table 3—Distribution of visits by pediatric clinic visited, for sex, age, social class, and ethnic group

Variable	Number of visits to:			Percentage distribution	For each category per cent of visits to:	
	appt. clinic	drop-in clinics	total		appt. clinic	drop-in clinics
Total	339	389	728	100.0		
Sex						
Male	172	216	388	53.3	44.3	55.7
Female	167	173	340	46.7	49.1	50.9
Child's age						
Under 6 mo	40	23	63	8.7	63.5	36.5
6 through 11 mo	32	34	66	9.1	48.5	51.5
1 through 5 yr	88	190	278	38.2	31.7	68.3
6 through 10 yr	87	105	192	26.4	45.3	54.7
11 through 14 yr	81	34	115	15.8	70.4	29.6
15 yr or older	11	3	14	1.9	78.6	21.4
Social class						
I	60	64	124	17.0	48.4	51.6
II	65	41	106	14.6	61.3	38.7
III	54	58	112	15.4	48.2	51.8
IV	116	155	271	37.2	42.8	57.2
V	35	59	94	12.9	37.2	62.8
Unknown*	9	12	21	2.9	42.9	57.1
Ethnic group						
Caucasian	264	241	505	69.4	52.3	47.7
Negro	60	122	182	25.0	33.0	67.0
Oriental	12	24	36	4.9	33.3	66.7
Other	3	2	5	0.7	60.0	40.0

* Information on father's occupation or education lacking.

given in Table 3. About an equal proportion of female children visited the two types of clinics, but a slightly higher proportion of male children visited the drop-in clinics. Eighteen per cent of the children visiting the clinic during the study period were under one year of age, 38 per cent were between one to five years, 26 per cent were six to ten years, and 18 per cent were 11 years or older. Variation in the age distribution between social classes or ethnic groups was not sufficient to explain the utilization differences to be described.

Differences appeared between social classes in their use of the appointment and drop-in clinics. The Social Class I

and III patients were equally distributed between the two clinics. However, more (61 per cent) of the visits made by Social Class II patients were to the appointment clinic. The opposite was true for Social Class IV and V patients who made proportionately more visits (57 and 63 per cent, respectively) to the drop-in clinics. The difference between the social classes in their use of the two clinics was significant ($p < 0.01$).

The most marked differences appeared between ethnic groups. More than half the visits made by white children were to the appointment clinic, but only one-third of the visits made by Negro and Oriental children were to the appoint-

ment clinic. The difference between ethnic groups in their use of the two clinics was significant ($p < 0.005$).

When ethnic group is controlled by social class (Table 4) it is seen that the Caucasians show little variation from the over-all rate of 52 per cent visiting the appointment clinic. Little variation in the proportion of appointment visits is found among Negroes in Social Classes III, IV, and V (37, 33, and 29 per cent, respectively). Eighty-one per cent of the visits by Negro children were by those in the two lowest social classes.

Reason for Seeing Doctor

Table 5 summarizes the categories of reasons given for seeing the doctor for each social class and ethnic group. Sixty per cent of the visits to the doctor made by Social Class II patients were for health supervision, which includes health examinations and precamp, pretravel, and preschool examinations. Forty-eight per cent of the visits by Social Class I patients were for health supervision. Among the other classes there is a dip in visits for health supervision and a corresponding increase in visits for acute

Table 4—Pediatric clinic visited by ethnic group and social class, number, and per cent

Ethnic group*	Clinic visited					
	Number of visits to:			Per cent of visits to:		
	appt. clinic	drop-in clinics	total	appt. clinic	drop-in clinics	total
Social class I						
Caucasian	53	57	110	48.2	51.8	100
Negro	0	1	1	—	100.0	100
Oriental	7	6	13	53.8	46.2	100
Social class II						
Caucasian	61	39	100	61.0	39.0	100
Negro	3	1	4	75.0	25.0	100
Oriental	0	1	1	—	100.0	100
Social class III						
Caucasian	45	38	83	54.2	45.8	100
Negro	7	12	19	36.8	63.2	100
Oriental	2	8	10	20.0	80.0	100
Social class IV						
Caucasian	84	86	170	49.4	50.6	100
Negro	29	60	89	32.6	67.4	100
Oriental	2	8	10	20.0	80.0	100
Social class V						
Caucasian	16	15	31	51.6	48.4	100
Negro	17	42	59	28.8	71.2	100
Oriental	1	1	2	50.0	50.0	100
Social class unknown†						
Caucasian	5	6	11	45.5	54.5	100
Negro	4	6	10	40.0	60.0	100
Oriental	0	0	0	—	—	—

* Excluded are five visits made by children not in one of the above ethnic groups.
 † Information on father's occupation or education lacking.

Table 5—Reported reason for seeing the doctor by social class and by ethnic group, number, and per cent

Variable	Reported reason for seeing the doctor				
	Number of visits for:				
	acute cond.	injuries, accidents	chronic cond.	health superv.	total
Social class					
I	58	4	3	59	124
II	38	2	2	64	106
III	66	1	5	40	112
IV	142	5	17	107	271
V	56	0	8	30	94
Total	360	12	35	300	707*
Ethnic group					
Caucasian	237	9	19	240	505
Negro	111	2	15	54	182
Oriental	20	2	1	13	36
Total	368	13	35	307	723†
Variable	Per cent of visits for:				
	Per cent of visits for:				
	acute cond.	injuries, accidents	chronic cond.	health superv.	total
Social class					
I	46.8	3.2	2.4	47.6	100
II	35.8	1.9	1.9	60.4	100
III	58.9	0.9	4.5	35.7	100
IV	52.4	1.8	6.3	39.5	100
V	59.6	—	8.5	31.9	100
Total	50.9	1.7	5.0	42.4	100
Ethnic group					
Caucasian	46.9	1.8	3.8	47.5	100
Negro	61.0	1.1	8.2	29.7	100
Oriental	55.6	5.6	2.8	36.1	100
Total	50.9	1.8	4.8	42.5	100

* Excludes 21 visits made by children of families for whom social class unknown.

† Excludes five visits made by children not in one of the above ethnic groups.

conditions. Differences between the classes in the proportion of visits for health supervision examinations were significant ($p < 0.005$).

When ethnic group is examined the differences are even more marked. Slightly more white patients came for health supervision than for acute conditions. However, among Orientals, for every two visits for health supervision

there were three for acute conditions, and among Negroes, for every preventive visit there were two for acute conditions. The differences were significant ($p < 0.005$).

Arrangement to See a Particular Doctor at Drop-In Clinic

A certain amount of sophistication in the use of the services can be ap-

plied by making a prior arrangement to see a particular doctor in drop-in. Some parents will do this by phoning in advance to have a particular pediatrician, usually their regular one, see a sick child. A question was therefore included to ascertain the extent to which different groups succeed in making such arrangements for drop-in visits. The differences noted in Table 6 for social class and ethnic group in the proportion making prior arrangement although not significant are consistent when one recalls that the Negroes are concentrated in Classes IV and V.

Child's Regular Doctor

In response to a question asking for the name of the child's regular doctor, 82 per cent of the informants specified the name of one of the Medical Group's pediatricians. Here again there were significant differences by social class and

race (Table 7). Eighty-six per cent of Caucasians named a pediatrician, while 68 per cent of Negroes, and 94 per cent of Orientals specified one. For social class the per cent varied from 93 per cent of Social Class I to 72 per cent of Social Class V naming a pediatrician. As seen from the table, few gave the name of other physicians.

Examining this group which did not specify the name of a doctor, we found that 28 (23 per cent) were seen in the appointment clinic and 92 (77 per cent) in the drop-in clinics. These patients constituted only 8 per cent of the overall appointment patients and 24 per cent of the drop-in patients. In the drop-in clinics, for 38 per cent of the Negro patients the name of a regular doctor could not be specified compared to 19 per cent for the Caucasians.

Length of time in the health plan was analyzed to ascertain whether the pre-

Table 6—Prior arrangement to see a particular doctor in the drop-in clinic by social class and by ethnic group, number, and per cent

Variable	Arranged to see a particular doctor					
	Number of visits			Per cent of visits		
	no	yes	total	no	yes	total
Social class						
I	46	17	63	73.0	27.0	100
II	30	10	40	75.0	25.0	100
III	42	14	56	75.0	25.0	100
IV	120	22	142	84.5	15.5	100
V	47	8	55	85.5	14.5	100
Total	285	71	356*	80.0	20.0	100
Ethnic group						
Caucasian	180	50	230	78.3	21.7	100
Negro	95	16	111	85.6	14.4	100
Oriental	15	8	23	65.2	34.8	100
Total	290	74	364†	79.7	20.3	100

* Excludes ten visits made by children of families for whom social class was unknown and one visit for which prior arrangement to see a particular doctor was unknown.

† Excludes two visits made by children not in one of the above ethnic groups and one visit for which prior arrangement to see a particular doctor was unknown.

Table 7—Child's regular doctor by social class and by ethnic group, number, and per cent

Variable	Child's regular doctor							
	Number of children having a :				Per cent of children having a :			
	Kaiser pedia- trician	other physician	none speci- fied*	total	Kaiser pedia- trician	other physician	none speci- fied*	total
Social class								
I	111	0	9	120	92.5	—	7.5	100
II	92	1	10	103	89.3	1.0	9.7	100
III	93	1	15	109	85.3	0.9	13.8	100
IV	205	2	55	262	78.2	0.8	21.0	100
V	66	0	26	92	71.7	—	28.3	100
Total	567	4	115	686†	82.7	0.5	16.8	100
Ethnic group								
Caucasian	426	4	64	494	86.2	0.8	13.0	100
Negro	117	2	53	172	68.0	1.2	30.8	100
Oriental	32	0	2	34	94.1	—	5.9	100
Total	575	6	119	700‡	82.1	0.9	17.0	100

* Includes responses of "none," "can't remember name," or "don't know."

† Excludes 19 children of families for whom social class was unknown.

‡ Excludes five children not in one of the above ethnic groups.

ceding finding could be explained by this variable. There were only 25 children (4 per cent) from families in the health plan less than six months, 52 (7 per cent) from families in the health plan from six months to a year, 55 children (8 per cent) from families in the health plan one year but less than two years, and the remaining 570 children (81 per cent) from families in the health plan at least two years. This distribution was typical of each social class and ethnic group. Furthermore, a majority of those not specifying the name of a doctor had been in the health plan at least two years.

Time and Day of Visit

Table 8 represents the time and day that patients sought care in the appointment and drop-in clinics by social class and by ethnic group. Although no significant differences were found, the Ne-

groes tended to have a higher per cent of Saturday appointments and drop-in visits after five o'clock.

Related to the time element is the question of availability of transportation. For 22 per cent of the weekday visits made prior to 5 P.M. at the drop-in clinic, the person accompanying the child did not have a car available during the day, in contrast to 53 per cent of those coming in after 5 P.M. and 27 per cent of those making Saturday visits. These differences proved to be significant ($p < 0.005$) and were evident among both the Caucasians and Negroes.

Discussion

This pilot study illustrates some demonstrable differences in utilization patterns of prepaid health plan benefits for children in a direct service program. We wish to emphasize that far-reaching

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conclusions are not warranted from the limited observations of this study which involved only about 1 per cent of the total pediatric visits made in one year at this large, prepaid center. However, within the study limitations there was

generally a greater utilization of preventive medical services by those in the upper social classes. For Classes IV and V, visits were made predominantly to the drop-in clinics. Analysis of these data by ethnic group revealed some in-

Table 8—Time of visit to the appointment and the drop-in clinics by social class and by ethnic group, number, and per cent

Variable	Time of visit to clinic							
	Number of visits made on:				Per cent of visits made on:			
	Wed.-Fri. 9 a.m.- 5 p.m.	Wed.-Fri. 5 p.m.- 9 a.m.	Sat.*	total	Wed.-Fri. 9 a.m.- 5 p.m.	Wed.-Fri. 5 p.m.- 9 a.m.	Sat.*	total
Appointment clinic								
Social class								
I	57	—	3	60	95.0	—	5.0	100
II	54	—	11	65	83.1	—	16.9	100
III	44	—	10	54	81.5	—	18.5	100
IV	91	—	25	116	78.4	—	21.6	100
V	28	—	7	35	80.0	—	20.0	100
Total	274	—	56	330†	83.0	—	17.0	100
Ethnic group								
Caucasian	226	—	38	264	85.6	—	14.4	100
Negro	44	—	16	60	73.3	—	26.7	100
Oriental	9	—	3	12	75.0	—	25.0	100
Total	279	—	57	336‡	83.0	—	17.0	100
Drop-in clinics								
Social class								
I	39	9	16	64	60.9	14.1	25.0	100
II	24	8	9	41	58.5	19.5	22.0	100
III	37	14	7	58	63.8	24.1	12.1	100
IV	80	38	37	155	51.6	24.5	23.9	100
V	39	10	10	59	66.1	16.9	16.9	100
Total	219	79	79	377†	58.1	21.0	21.0	100
Ethnic group								
Caucasian	141	44	56	241	58.5	18.3	23.2	100
Negro	71	32	19	122	58.2	26.2	15.6	100
Oriental	13	4	7	24	54.2	16.7	29.2	100
Total	225	80	82	387‡	58.1	20.7	21.2	100

* On Saturday the appointment clinic is open 9 a.m.-1 p.m.

† Excludes nine visits to appointment clinic and 12 visits to drop-in clinics made by children of families for whom social class is unknown.

‡ Excludes three visits to appointment clinic and two visits to drop-in clinics made by children not in one of the above ethnic groups.

teresting findings. Among Caucasians, social class differences in utilization were minor. Most of the Negroes in the study were in Social Classes IV and V, and it was their greater reliance upon the acute medical services offered in drop-in that produced the different pattern seen here for these two lower social classes. Hence the differences observed in this regard were more readily correlated with ethnic group than with social class as represented by education and occupation. This raises a question about the adequacy of measures of social position, such as the Hollingshead Two Factor Index of Social Position, which do not include ethnic group as part of the criteria.

In evaluating the possible reasons for the different patterns observed, one must consider the organization of services, their availability and accessibility, population differences that could influence the incidence of illness, and possible barriers such as discrimination. No deliberate impediment or discrimination has been observed or alleged in this prepaid setting that could explain the observed differences. If Negro patients in the study had a higher incidence of illness than Caucasian patients, this could explain some of the findings. However, there is a contrast in utilization between Caucasians and Negroes within Social Classes IV and V. This ethnic difference within the same social classes is more likely to be explained by less utilization of preventive services by Negroes than by a greater incidence of illness. Thirty-eight per cent of the Negroes in drop-in had no regular pediatrician compared with 19 per cent of the Caucasians. This finding further supports the inference that Negroes use preventive services less frequently.

The drop-in clinic offers a readily available convenient service for acute illness every day of the year. The facilities are new and attractive, and equal to those provided in the appointment

clinic. Such a service certainly meets the need for which it was designed, but Match's²⁰ observation raises the question of whether these factors themselves are having an effect upon utilization. He described the Kaiser drop-in clinics as "more permissive than desirable" for his Health Insurance Plan of Greater New York because "too high a proportion of patients would be seen on a 'drop-in' basis in the absence of fairly rigid restrictions and controls." Dr. Match reported that his group (Hicksville, Long Island) "deliberately endeavored to create conditions that would be less desirable for patients, yet would still provide the opportunity for a patient to be seen on a very short notice if necessary." They provided small examining areas and limited physician time available for each visit.

Availability of appointments could be an element in utilization. While such an evaluation was not undertaken in the study, it may be noteworthy that drop-in services, available every day and evening of the year, are more accessible than appointment services. There is some suggestion from the data that limiting appointments to the 9 to 5 workdays could be a factor that influences utilization. There was a trend for Negro patients to be present in a larger proportion in the drop-in clinics during the evenings (when no appointments are available) and for greater numbers of Negroes to utilize the limited appointment services on Saturday mornings. At these times a larger proportion of patients with limited transportation facilities also visited the clinics. These findings suggest that expansion of appointment hours is an empiric method available to health plans to produce more effective use of preventive services. Grant, a consumer member of the Community Health Association of Detroit, told the 1963 Group Health Institute that evening clinics "are a must if consumer group health plans are to fulfill their

purposes and render services to all members without discrimination."²¹ He stated that day-shift workers are unable to come to the clinic and often transportation or baby sitting problems interfere with daytime appointments.

Our study indicated that among those interviewed, the Permanente Group achieved marked success in having families select one of the group's pediatricians as the child's regular doctor. Only 8 per cent of the appointment patients did not have a regular pediatrician, while 24 per cent of the drop-in patients had none. These patients without a regular pediatrician were 19 per cent of the Caucasians and 38 per cent of the Negroes seen in drop-in. This gives an indication of a portion of the target group with whom further health education efforts may be beneficial.

Since the study suggests that some less advantaged segments of the population may use primarily acute medical care facilities, instead of preventive services, group plans may well be assisted in their missions by examining how, what, where, and when services are offered and received by enrollees. The present trend in the methods used by some health plans for collection and analysis of data places primary emphasis on total services rendered or obtained, without evaluating social class or ethnic correlates, or assessing nonutilization.

The elimination of the economic barriers via prepayment for services did not appear *per se* to result in equal use of services by families. While the benefit structure is available to everyone enrolled without discrimination, the differences demonstrated suggest that the medical care needs of some may not be fully met, despite prepayment, through their own nonutilization. As in any group insurance plan, nonutilization may be seen as an indirect means of subsidizing the care received by those more completely using the services. If there

is a greater degree of nonutilization by lower social classes enrolled in health plans, then they are indirectly subsidizing the cost of care for those in the upper social classes who use the benefits more extensively.

A decade ago, Weinerman appraised medical care in group health centers before the Medical Care Section. He pointed out that, "Traditional cultural patterns in the receipt of medical care create definite resistance to change among the general population. The average family is poorly informed regarding the technicalities of health insurance, and has little first-hand experience with the new concepts of group practice."²² This statement certainly is most pertinent to the large numbers of disadvantaged Negro and other minority families who are becoming an increasing proportion of enrollees in urban health plans. Furthermore, with a long history of discrimination, they have become alienated from the white middle class and its methods, that are expressed in the organization of its medical care services.

The study observations support the general contention that group health centers may have to adopt more effective methods to overcome the resistance of lower social class and ethnic minorities to making better use of services for which they have already paid. Expanding and modifying health education programs, decentralizing services via branch clinics and other methods, and providing readily available and accessible appointments, including night clinics, are among the means available.

We need to know more about the attitudes toward and expectations of health care by ethnic minorities. Cornely and Bigman have made valuable contributions to this area in their three-volume study of a sample of low-income Negroes and whites.²³ Further research by the health plans themselves could provide some insights into this perplexing

problem of stimulating disadvantaged minorities to effectively use the preventive aspects of health care and other comprehensive health plan benefits.

Summary

In a pilot study at the pediatric clinics of the Kaiser Foundation Health Plan facility in Oakland, Calif., interviews were conducted for 728 visits made by 705 children during a four-day period in June, 1964. For over 80 per cent of the children, the families had been in the health plan at least two years. Seventy per cent of the children were white and the remaining 30 per cent predominantly Negro.

A higher proportion of visits for preventive services were made by those in the upper social classes. Whites regardless of social class followed relatively similar patterns of care, dividing their visits almost equally between the appointment and drop-in clinics. Negroes visited primarily drop-in clinics and made a smaller proportion of their visits for preventive services.

For 82 per cent of the children a regular pediatrician could be identified. Sixty-eight per cent of the Negro children had a regular pediatrician compared to 86 per cent of the whites.

There was no significant ethnic or social class difference related to time of visit.

Among those visiting the drop-in clinics weekdays, 53 per cent of those making evening visits and 22 per cent of those making daytime visits had a transportation problem.

The elimination of the economic barriers via prepayment for services did not appear per se to result in equality of utilization of services for the white and nonwhite population.

Further research is indicated to examine differential patterns of medical care in prepayment health plans. Even without more extensive research, some em-

piric modifications of services could be made to permit more effective utilization.

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New Disease Control Manual

The Association's family of disease control manuals was enlarged in November by the publication of "Control of Chronic Diseases in Man." This handbook presents a quick summary of disease characteristics and known control measures. It is the product of the PAC on Chronic Disease and Rehabilitation and was edited by Henrik Blum, M.D., and George M. Keranen, M.D. The volume was financed by the Public Health Service. Available now from the APHA Book Service, 1740 Broadway, New York, N. Y. 10019. Price, \$3.