The Impact of Health Policy on Access to Medical Care

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This article presents national data on a social-indicator-type measure of access to medical care, prior to and after the introduction of Medicare and Medicaid in the United States. The analyses confirm that the access of the poor, especially those with a regular source of medical care did improve, relative to the non-poor, between 1963 and 1970. Access for middle-class and low-income persons with no *usual doctor and the high-income with a regular family physician declined considerably over this period, however. One explanation of these findings proffered is that after Medicare and Medicaid were introduced, providers may have begun to ration the number of visits by the "well-to-do" to accommodate the influx of low-income patients with newly acquired purchasing power and a backlog of unmet need. Many poor with no previously established source of care continued to experience barriers to entry. Much more sophisticated analyses are required to test this and other propositions suggested here, however.*

Introduction

An expressed or implicit goal of much of health policy is to improve people's access to the medical care system. Until recently, however, there have been few explicit social indicators of the access concept that could be used by policy makers and others to monitor the progress of the system toward achieving this objective (Aday and Andersen, 1974).

To some researchers "access" has meant the availability of the resources necessary for an individual to enter the system and to others, the process of gaining entry itself. An indicator that has been used most often both in the United States and other countries actually to summarize the progress of health policy in achieving this equity of access objective is a change in physician-utilization rates by income. Implied in the use of this measure is that (1) if low-income groups use more services after significant changes in the organization and/or financing of care have been introduced, and that (2) if their rates of use become more like that of the high-income groups after these changes, then one can assume that greater equity has been achieved.

The poor, however, have consistently reported lower levels of health and more disability than the non-poor. Citing changes in the volume of physician service use by income with no indication of the different groups' need for medical services still does not answer the question of whether equity—in terms of the use of services relative to the respective need for care—has been achieved. In the United States, at least, there is evidence that, despite the introduction of Medicare and Medicaid and subsequent increases in the overall volume of physician use by the low-income group, the poor may still be at a disadvantage relative to their experienced *need* for care.

In 1971, for example, people from families earning less than $3,000 averaged one more visit (6.2) than those from families earning $10,000 or more (5.2) (National Center for Health Statistics, 1975). The number of restricted-activity days they experienced, however, was almost *three* times greater than the number experienced by high-income individuals—33.7 restricted-activity days per person per year for those earning less than $3,000 compared to 11.6 for individuals from families earning $10,000 or more (National Center for Health Statistics, 1974).

Recently, efforts to formalize and develop empirical definitions of access have yielded social-indicator-type summary measures of access that permit the use of services *relative to the need for care* to be expressed in a single descriptive index (Aday, 1975; Aday and Andersen, 1975; Taylor et al., 1975). In this paper, data on one of these indexes—the use-disability ratio[1]—will be presented from national studies conducted prior to and after the introduction of Medicare and Medicaid in the United States. Changes in the use of services relative to need for care for different income groups over this period will be examined. Further, the relative impact of having a usual place to go for care on the use of needed services by people of different economic classes before and after the introduction of these financing programs will be analyzed.

These analyses should permit (1) changes in access resulting from health-policy initiatives in the *financing* of care to be examined; and (2) the relative importance of a more explicitly *organizational* factor in affecting people's ability to get care when the need arises to be evaluated. The major federal policy efforts to date have focused on changes in the financing of medical care (Medicare, Medicaid, national health insurance, etc.). The analyses reported here explore the impact of having (or not having) a regular

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[1] The precise formula is described later. Basically, the index reflects the number of physician visits per 100 days of bed or restricted-activity days in a specified time period.

place to go for service on care seeking when they need it *and* when the financial burdens of seeking such care are minimized. These data should help inform public policy of the "success" of existing financing mechanisms in enhancing equity and suggest the utility of exploring more "organizational" solutions for improving people's ability to obtain care when they need it.

Background Literature

Increasingly, "access" itself is being considered in terms of whether people actually in *need* of medical care receive it or not. Beck (1973), for example, uses a "medical iceberg" notion to conceptualize access. The iceberg itself represents the set of medical needs that might be treated by a physician. The proportion of the iceberg above water represents those needs which actually receive the attention of a physician. The greater the portion of the iceberg above water, the greater the "access" to care of the group represented by the iceberg. Similarly, Donabedian (1973) argues that "the proof of access is use of services, not simply the presence of a facility," and that access can, accordingly, be measured by the level of use in relation to need.

Efforts to evaluate the impact of government health policy in other countries on their population's access to medical care have quite often focused on whether people who "need" care—in terms of the symptoms or disability they experience—receive it or not. A group of special interest in evaluating the effects of health policy on access is the low-income population, who, in most countries, traditionally have had less access relative to their experienced need for care than the high-income population.

Studies by McDonald et al. (1973) and Enterline et al. (1973) in Montreal before and after the introduction of Medicare showed, for example, that the proportion of the low-income population seeing a physician for symptoms was much higher after the program went into effect than before. After Medicare the symptom-related use for low-income people became quite similar to that of the high-income group. Similarly, Nyman and Kalimo (1973) and Purola (1973) found that the volume of physician visits for those with disability increased after the introduction of a national sickness insurance plan in Finland. The rate of increase was greatest for the low-income population.

Each of these studies concluded, however, that though the proportion of people needing care who received it did increase to some degree after the introduction of government-sponsored financing schemes, especially among the low-income group, problems still remained because of the increased demand on the system and the failure to make accompanying changes in how the care itself was delivered. Enterline et al. (1973) pointed out the greater length of time that patients had to wait before seeing a doctor, because of the longer queues for service. Further, Nyman and Kalimo (1973) and Purola (1973) demonstrated that the scarcity of medical manpower in the rural areas of Finland and the long distances people in those regions subsequently had to travel to obtain care continued to inhibit full access to the system, even after the introduction of the national sickness insurance plan.

Currently, in the United States, with Medicare and Medicaid having been in effect several years (since 1965), the most recent National Center for Health Statistics data (1975) show that people earning less than $3,000 now, in contrast to the past, average *more* physician contacts per year overall (6.0) than those earning $15,000 or more (5.1). In 1966-67, persons with family incomes under $3,000 had slightly fewer contacts (4.6) than the highest-income group (4.8), and in 1963-64, before Medicare-Medicaid, they had almost one-third fewer visits to a physician (4.3) than those earning $15,000 or more (5.8).

When physician use is considered in relationship to experienced need for care, however, the relationship is less clear-cut. Bice et al. (1972: 265) for example, showed that, controlling for chronic-disability status, people with some limitation having incomes of $10,000 or more averaged more visits to a physician in 1969 than did people with similar limitations earning less than $5,000. Andersen et al. (1972) pointed out that in 1970 people above the poverty level were still apt to contact a physician at higher rates relative to the bed or restricted-activity days they experienced than those below the poverty level.

Though several local studies—in Rhode Island (Montiero, 1973) and Baltimore, Maryland (Rabin and Schach, 1975; Rabin et al., 1974), for example—suggest that low-income people covered by Medicaid or Medicare are *more* apt to contact a doctor when the need arises than are high-income individuals, a panel study of welfare recipients in New York City (Olendzki, 1974) concluded that Medicaid primarily benefited the younger and less sick poor and *not* the aged and the most ill, for whom the greatest barriers to actually *getting to care* persisted.

Further, Andersen (1975) argued that, based on analysis of a 1970 nationwide survey of health care utilization and access, controlling for the effects of income, disability, and numerous other socio-demographic, enabling, and need variables, the most important factor contributing to continued "inequity" in the utilization of physician services in the United States by the low-income and ethnic non-whites was that they did not have a regular source of medical care they could go to for routine advice and treatment. Similarly, other studies, using explicit social indicators of "access," concluded that the poor continue to use services at a lower rate relative to their need for care than do the non-poor and that organizational, rather than explicitly financial barriers, may be causing these differences to persist (Aday, 1975; Taylor et al., 1975).

In none of these studies, however, are *trend* data showing *the relative effects of organizational and financial factors on access both prior to and after the introduction of Medicare and Medicaid* presented. In the analyses that follow, data on one recently formulated access indicator—the use-disability ratio—will be presented for data collected in national samples of the U.S. population in 1963 and 1970—before and after the enactment of Medicaid and Medicare. These data should permit a more direct assessment of the relative impact of financing versus more explicitly organizational barriers to access to be examined in the context of major health policy changes in the financing of medical care.

The Data

The data used in these analyses were collected in nationwide surveys of health-services utilization and expenditures conducted by the Center for Health Administration Studies at the University of Chicago in 1963 and 1970 (Andersen and Anderson, 1967; Andersen et al., 1972).

The disability days data from the 1963 study reported here were based on the question, "As a result of illness and injury approximately how many days during 1963 were you (was PERSON) kept in bed, indoors, or away from usual activities?" In 1970 the comparable question asked of respondents was: "As a result of illness and injury approximately how many days during all of 1970 was (PERSON) kept in bed, indoors, or away from (his/her) usual activities?" Any days a patient was lying in bed overnight in a hospital were excluded from the disability day totals reported for these questions.

The physician visits reported in both 1963 and 1970 include seeing either a doctor or osteopath or his nurse or technician at the following sites: patient's home; doctor's office or private clinic; hospital outpatient department or emergency room; industrial, school, camp, or college health service; and any other clinic, such as a board of health clinic or neighborhood health center. Excluded are telephone calls and visits by a doctor to a hospital inpatient.

The question used in 1963 and 1970 to determine whether or not an individual had a regular source of medical care was: "Is there a particular medical person or clinic (PERSON) usually goes to when sick, or for advice about health?" and the follow-up question: "Is that a clinic, a regular family doctor, some type of specialist, an osteopath, a chiropractor, or what?"

The low-, medium-, and high-income category breakdowns in 1963 were, respectively, $0-3,999; $4,000-6,999; $7,000 and over. In 1970 they were altered to adjust for inflation as follows: $0-4,999; $5,000-12,499; $12,500 and over.[2]

The 1963 insurance variable refers to whether or not people had some kind of voluntary health insurance coverage. Individuals who did *not* have private health insurance may have received free care through public assistance, veterans' programs, or care given under the Crippled Children's Program or related projects. Similarly, in 1970 the insurance variable reflects whether or not an individual had private health insurance coverage. People who did not, however; may have still received "free" care benefits, as did the "uninsured" in 1963. In addition, however, in 1970 many of the low-income population were eligible for benefits through Medicaid and people 65 years of age and older could obtain Medicare coverage. The "uninsured" in these categories (the poor and people 65 and over) did, then, in 1970 possess buying power in the medical marketplace more like that of the "insured" (who had some form of voluntary health insurance), than did the "uninsured" in 1963.

[2] This adjustment also insured that the *proportion* of the population in each income category was similar in 1963 and 1970.

The Use-Disability Index

The basic computational formula for the use-disability index is as ollows:

$$\text{use-disability index} = \frac{\dfrac{\sum_{i=1}^{n} MD_i}{n}}{\dfrac{\sum_{i=1}^{n} DD_i}{n}}(100) = \frac{\text{mean } MD_i}{\text{mean } DD_i}(100)$$

where

MD_i = number of physician visits in specified time period made by an individual i who had at least one disability day in that period

DD_i = number of disability days in specified time period for an individual i who had at least one disability day in that period

The form of the index used here offers several improvements over previous methods for operationalizing the ratio reported in the literature (Aday, 1975). The findings that follow are based on *annual* disability day and physician use data, rather than on *two-week* data. Using the annual estimates, a larger percentage of the total U.S. population can be considered in computing the ratio (43 percent in 1963 and 48 percent in 1970) than is possible with the two-week catchment period.[3] Further, the disability days reported here explicitly exclude any days spent as a hospital inpatient, and the physician-visit measure used in constructing the index includes only *non*-inpatient, ambulatory encounters with a physician. The values on the ratio generated here are, then, purer indicators to ac-

[3] In 1970 only 17 percent of the U.S. population had experienced at least one disability day during the two-week period preceding the interview and, hence, could be included in the two-week use-disability index. The recall for the annual data, however, is apt to be much less accurate than the two-week recall. Comparison of gross annual mean disability day data from the 1970 CHAS study—in which the respondent is asked to recall all his disability days over the past year—(10.1) with the 1970 NCHS data—which is based on the aggregation of two-week recall data (15.7), suggests an underestimation of 36 percent using the gross annual recall method (National Center for Health Statistics, 1974).

TABLE 1
Physician Visits, Disability Days, and Use-Disability Index by Family Income, 1963 and 1970

Family Income	Physician Visits per Person with Disability		Disability Days per Person with Disability		Use-Disability Index i.e., Physician Visits per 100 Disability Days		%Change in Use-Disability Index
	1963	*1970*	*1963*	*1970*	*1963*[b]	*1970*[c]	*1963-1970*
High	6.1	4.8	11.6	11.7	52.6 (1.37)	41.1 (1.48)	-22%
Medium	6.2	5.3	14.4	18.3	42.4 (1.10)	28.8 (1.04)	-32%
Low	8.3	7.5	33.9	40.9	24.1 (.63)	18.4 (.66)	-24%
Total	6.6	5.5	16.9	19.8	38.5 (1.00)	27.7 (1.00)	-28%

[a] The index is based on the formula: $\frac{\text{physician visits per person with disability}}{\text{disability days per person with disability}}(100)$. To compute the index, the values of the components were carried to *three* decimal places before dividing.

The numbers in parentheses are standardized index numbers, in which the ratio for the different groups is calculated as a proportion of (or relative to) the ratio for the total population in each year (considered as 1.00). This standardized index permits the relative variation among each of the groups to be mroe clearly portrayed.

[b] %Table N of 1963 total U.S. population = 43%; % without disability days and NAs = 57%.

[c] % Table N is of 1970 total U.S. population = 48%; % without disability days and NAs = 52%.

cess to *ambulatory* care services than are previous values reported for the index.

The basic substantive question to be addressed here is similar to one raised in an initial analyses of the ratio (Aday, 1975), using two-week recall data—"What is the relative impact of organizational and financial factors on people's access to medical care when the need arises?" The analyses that follow, however, permit a more exacting examination of the question through the presentation of *trend* data before and after substantial changes in the system of financing medical care in the United States had been introduced.

Findings

Table 1 shows that, overall, people who had a least one limited-activity day in 1970 averaged fewer contacts with a physician than did people with at least one day of disability in 1963. A similar pattern emerges from reports of general physician use, not controlling for need (Andersen et al., 1972; National Center for Health Statistics, 1975). Though a slightly higher proportion of the population may have seen a doctor in 1970 than 1963, the average number of visits per person declined slightly. Further, though reporting variability may account for some of the changes in mean disability days by income from 1963 to 1970, these data, as do National Center for Health Statistics data (1974), show that the number of disability days reported by high-income persons did not differ greatly in 1963 and 1970, while medium- and low-income persons in 1970 reported *more* days of limited activity than did the same group in 1963.

The use-disability index permits the net effects of these trends to be summarized. Considering only the volume of physician visits by income, in both 1963 and 1970, the low-income people with disability averaged more visits to a doctor overall than did the medium- or high-income groups. Looking at their use of services relative to their respective need for care, in terms of the use-disability index, however, it is apparent that the low-income population saw a doctor less often relative to the disability experienced than did the other income groups. This was true both in 1963 *and* 1970. The last column in Table 1 summarizes the net change in the ratio itself for the different income groups over the seven-year period. Overall, people saw a doctor less often relative to the disability they experienced in 1970 than in 1963. Interestingly enough, the decline was greatest for the medium-income consumer, to whom the benefits of permanent income and public subsidy available to the high- and low-income groups, respectively, are often *not* available. The standardized ratio similarly shows that though the low-income group continue to see a doctor less often than the high- and middle-income consumers, it was the latter whose "access" declined most, compared to the national average, between 1963 and 1970.

The overall decline in access from 1963 and 1970 reflected in the use-disability index is primarily due to the fact that people who reported at least one day when they had to limit their usual activity averaged more limited-activity days, but fewer physician visits in 1970 than in 1963. A number of factors may account for the increase in the number of disability days reported: changes in the recall and/or actual incidence of disability days from 1963 to 1970 because of the increased availability and salience of sick-leave benefits; shifts in the case mix of illness, or in the age and sex distribution of the population over that time period. In any case, people with reported disability averaged fewer visits to a doctor in 1970 than in 1963. The disability days reported in 1970 may have been the result of less serious illnesses—which required fewer visits to a physician—or, because more people *overall* saw a doctor in 1970 than in 1963, physicians may have proceeded to ration the number of contacts per patient. The subsequent tables document the differential rates of decline for particular policy-relevant subgroups over that time period.

Table 2 permits the impact of having and not having private health insurance coverage for the different income groups to be examined in the pre- and post-Medicare-Medicaid periods. In both 1963 and 1970 people who *did not* have private insurance saw a doctor less often relative to the disability days they experienced than did those who had it. Looking with each of the income groups, one can see that the rate of decline in care seeking relative to disability from 1963 to 1970 is greater for those who did *not* have voluntary insurance coverage than for those who had such coverage.[4] However, the *difference* in the rate of decline for the "insured" and "uninsured" is less for the low-income group than

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[4] Basically, the larger the *negative* value in the "% Change" column the *lower* the rate of seeing a doctor relative to disability in 1970 than in 1963.

TABLE 2
Use-Disability Index by Family Income by Insurance Coverage, 1963 and 1970[a]

Family Income	Insurance Coverage	Use-Disability Index, i.e., Physician Visits per 100 Disability Days		% Change in Use-Disability Index
		1963	*1970*	*1963-1970*
High	Voluntary insurance	54.6 (1.42)	46.8 (1.69)	-14
	No voluntary insurance	42.0 (1.09)	20.7 (.75)	-51
Medium	Voluntary insurance	45.5 (1.18)	35.4 (1.28)	-22
	No voluntary insurance	35.6 (.92)	18.0 (.65)	-50
Low	Voluntary insurance	29.6 (.77)	25.1 (.91)	-15
	No voluntary insurance	19.9 (.52)	15.7 (.57)	-21
Total		38.5 (1.00)	27.7 (1.00)	-28

[a] Footnotes a, b, and c in Table 1 apply here also.

for the medium- and high-income populations. What these findings suggest, then, is that though the low-income who have no voluntary health insurance continue to have the least "actual" access advantage (only 15.7 physician visits per 100 days of disability—which is the lowest of the groups specified in Table 1), the relative disadvantage of *not* having private insurance is less for the poor than for other income groups, because of the increased availability to the former of publicly subsidized financing. The "uninsured" low-income group in 1970, in contrast to 1963, includes people who have *public* "insurance" coverage (through Medicare or Medicaid).

TABLE 3
Use-Disability Index by Family Income by Insurance Coverage by Regular Source of Care, 1963 and 1970[a]

Family Income	Insurance Coverage	Regular Source of Care	Use-Disability Index, i.e., Physician Visits per 100 Disability Days				% Change in Use-Disability Index
			1963		1970		1963-1970
High	Voluntary insurance	Doctor	54.5	(1.42)	44.3	(1.60)	− 19
		Clinic	65.5	(1.70)	67.2	(2.43)	+ 3
		None	40.6	(1.05)	39.5	(1.43)	− 3
	No voluntary insurance	Doctor	44.4	(1.15)	17.7	(.64)	− 60
		Clinic	64.0	(1.66)	36.5	(1.32)	− 43
		None	28.9	(.75)	b		b
Medium	Voluntary insurance	Doctor	44.8	(1.16)	36.4	(1.31)	− 19
		Clinic	49.4	(1.28)	37.0	(1.34)	− 25
		None	52.0	(1.35)	17.0	(.61)	− 67
	No voluntary insurance	Doctor	46.7	(1.21)	18.5	(.67)	− 60
		Clinic	42.2	(1.10)	20.5	(.74)	− 51
		None	10.0	(.26)	5.9	(.21)	− 41
Low	Voluntary insurance	Doctor	30.8	(.80)	25.7	(.93)	− 17
		Clinic	23.4	(.61)	23.0	(.83)	− 2
		None	25.4	(.66)	24.6	(.89)	− 3
	No voluntary insurance	Doctor	18.4	(.48)	18.3	(.66)	0
		Clinic	40.2	(1.04)	17.8	(.64)	− 56
		None	15.8	(.41)	4.7	(.17)	− 70
	Total		38.5	(1.00)	27.7	(1.00)	− 27

[a] Footnotes a, b, and c in Table 1 apply here also.

[b] Number of unweighted observations is less than 25.

Table 3 shows the relative impact of having (or not having) a regular source of medical care on the use of services for different income-insurance coverage categories, prior to and after the advent of large-scale public financing schemes. In 1963 people who had no place they routinely went to for care were, in most income-insurance categories, less apt to have seen a doctor in response to illness than those who had a doctor or clinic as their usual source of care. This difference was less striking in 1963, however, for medium- and low-income people who had private health insurance coverage.

In 1970, once again, it is the people who *do not* have a regular source of care who have the lowest scores on the use-disability index. This difference is less, however, for the poor who have some form of voluntary health insurance. In 1963 and 1970 the low- and medium-income people *without* voluntary insurance coverage *and* no regular source of care were least advantaged (had the lowest scores on the index) of any group.

Looking at the relative change in the index from 1963 to 1970, it appears that high-income people with doctors as their usual source of care experienced greater declines in the rate of use relative to their need during that period than high-income people without personal physicians. For medium-income people with private insurance and the poor with no voluntary insurance coverage, individuals who had *no* place they routinely went to for care experienced the greatest decline in the use of services relative to need from 1963 to 1970. For the low-income uninsured who had a *doctor* as their usual source of care, there was, however, no change (in the unstandardized ratio).

One could infer from these findings, then, that many high-income people with a regular family doctor saw him less often relative to their need for care in 1970 than in 1963. The uninsured poor with a family doctor continued to hold their own. This group, however, is apt to have benefited most from the advent of publicly subsidized financing of care during that period. The relative position of the uninsured poor who did *not* have a regular source of care or even the middle-income consumer with private coverage, but no family doctor, worsened considerably from 1963 to 1970.

Much more elaborate analyses are required to test all of the propositions proffered here. What these preliminary findings suggest, however, is that there are competing elements at work to determine the ultimate outcomes of any large-scale changes in health policy. Overall, people seemed to contact a physician at lower rates relative to the disability they experienced in 1970 than in 1963. The poor with no private insurance coverage, but a regular family doctor, were least affected by this trend. This was one of the groups most apt to have been assisted by the *financing* changes during that period. Their (uninsured, poor) counterparts who did *not* have a regular source of care, however, suffered the greatest relative decline over that period— −70 percent (unadjusted); −58 percent (adjusted)—to have the lowest actual level of access of any group in 1970 (4.7 physician visits per 100 days of disability).

Changes in the financing of care have apparently enhanced low-income people's ability to get care when the need arises—especially among those who have a regular point of entry to the system. For those who do not, however, significant inequities in access persist.

The finding that middle- and high-income consumers with regular family doctors *also* experienced large declines in their rates of use relative to need from 1963 to 1970 would seem to lend support to a thesis that appears in the current literature, which is that, with increased demands on the system through pervasive changes in financing, providers *may* begin to ration the units of service that are available to "worried-well" or less ill care seekers (who, traditionally, have been the high- and middle-income patients). The flow of low-income patients into the system in greater numbers now, in large measure, represents the entry of very sick people with a blacklog of unmet need (Freidson, 1973; Jackson and Greenlick, 1974; Mechanic, 1971; Stuart and Stockton, 1973).

Riecken and Boruch (1974:113), using trends in simple volume of visits measures from 1963 to 1970 to document the impact of Medicaid, similarly argue that "with an essentially fixed number of doctors' hours per citizen, increased attention to Groups F and E (people earning under $3,000 and $3,000 to $4,999 per year, respectively), even though they are a small portion of the population, would result in some decrease in attention to the other groups."

Andersen and Smedby (1975) found, using another need-based social-indicator-type measure of access, that, contrary to the findings on the use-disability ratio reported here, there was a slight overall improvement (rather than decline) in "access" from 1963 to 1970. The symptoms-response ratio used in their analyses, however, was primarily an initial-contact indicator (did the person see a doctor when a symptom was experienced or not), while the use-disability ratio summarizes both the initial visit *and* physician-initiated revisits for a perceived illness. The reduction of the financial barriers to access between 1963 and 1970 may have enhanced initial entry to the system, but provider decision making once entry was gained may have served to restrict re-entry.

Summary and Conclusions

The purpose of these analyses was to evaluate the relative importance of financing and organizational factors on access to medical care prior to and after the introduction of major federal policy changes in the financing of care in the United States. National survey data on the relative impact of these factors on a need-based social indicator of access, before and after the introduction of Medicare and Medicaid, were presented. The results of these analyses suggest "guarded optimism" regarding the success of Medicaid and Medicare in narrowing existing access differentials and imply the utility of *combined* organizational and financing strategies in formulating future health policy on the "access" question.

Simple volume of physician visits alone imply that low-income people now, in contrast to the past, see a doctor more often than do high- or middle-income individuals. Considering their use of services relative to their respective need for care—using the use-disability index—we found, however, that the poor are still at a disadvantage, compared to the non-poor. The poor with no private insurance coverage and no regular place to go for care, in fact, see a doctor the *least* often of any group, relative to their respective need for services.

The *comparative* improvement in access over time does appear to have been greatest for the poor, however, Middle- and upper-income consumers, especially those who had regular family doctors, experienced the greatest declines in their rates of care seeking relative to need from 1963 to 1970. The poor without private insurance, but with regular doctors, and to whom the benefits of public financing were most available, seemed to hold their own during this period. The poor with no priv ate insurance who had no place they routinely went to for care suffered the greatest overall decline in access, however, from 1963 to 1970.

What these findings *may* imply, then, is that as a larger overall proportion of the U.S. population came to enter the health care system in the years between 1963 and 1970, providers, concomitantly, may have begun to ration the allocation of limited system resources to accommodate the most needy *at the expense of* (1) the less sick, and (2) the more sick with no previously established point of entry to the system. Doctors may have seen their more affluent "worried'well" patients at lower rates to accommodate the larger number of poor clients with newly-acquired buying power and backlog of unmet need. The number of such "new" patients they could take on, however, may help account for why the uninsured poor with no regular source of care in 1963 *and* 1970 continue to suffer the greatest access differentials.

The preceding thesis is one *ad hoc* hypothesis that might be used to explain the differences reported here. Other factors not considered in these analyses that may help to account for these trends are any shifts in the basic socio-demographic composition of the population (age, for example) or the case mix, in general, of the people who see physicians.[5]

Much more sophisticated analyses are required to test all of the explanations proposed here. These preliminary analyses do suggest: (1) the importance of formulating public policy which simultaneously considers the financing *and* organizational aspects of care seeking and providing, and (2) the importance of analyzing organizational and financing factors *together* in any efforts to evaluate the main effects of each.

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[5] An index of dissimilarity computed for age, sex, and race breakdowns of the U.S. population in 1963 and 1970 showed that 6.4 percent of the U.S. population in 1970 would have to be redistributed in order for it to have the same distribution as the 1963 population. The greatest change appears to be in a reduction of the population of children under five years of age, especially among the non-whites. This undoubtedly reflects a declining birth rate in that subgroup. Young children report few disability days. The reduction of their numbers in the population in 1970 compared to 1963 may help account for the greater mean disability days reported in 1970, i.e., there were fewer young people with small numbers of disability days to "deflate" the average in 1970 than in 1963.

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