Articles

Health Care Under AHCCCS: An Examination of Arizona's Alternative to Medicaid

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In late 1982, as an alternative to Medicaid, Arizona implemented a prepaid, competitively bid medical care program—the Arizona Health Care Cost Containment System (AHCCCS). Before its introduction, the poor had been cared for primarily by a network of county-supported centers. Impact of the AHCCCS initiative was examined by surveying comparable samples of poor persons in pre-AHCCCS 1982, and in 1984, after the program was in place. Both before and since AHCCCS, Arizona has had very restrictive eligibility requirements; to examine the program's impact on both eligible persons and the so-called "notch" group, the samples consist of individuals with family incomes within 200 percent of the program's financial criterion. Telephone surveys revealed that overall a lower proportion of the poor were enrolled in AHCCCS in 1984 than participated in county programs in 1982. However, access to care increased for AHCCCS enrollees in 1984, compared to county patients in 1982—and a greater proportion of 1984 AHCCCS enrollees than their 1982 counterparts in the county programs had at least one medical encounter in the 12 months preceding the surveys. For its enrolled population, then, AHCCCS may be a viable alternative to conventional Medicaid programs and to previous efforts at providing care at county sites. But the poor financially ineligible for AHCCCS are experiencing decreased opportunities for health services. The conclusions address the policy implications of the findings.

In late 1982, Arizona became the last state to share the cost of medical care for its poor with the federal government. Until then, rather than participate in Medicaid, the state delegated responsibility for the costs

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This research was supported by the Flinn Foundation, Phoenix, Arizona, and the Robert Wood Johnson Foundation, Princeton, New Jersey. The authors, however, are solely responsible for the contents of this paper.

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of health care for the poor to county governments. The large majority of persons not fully able to pay for their medical care, either personally or through third-party coverage, received treatment in county hospitals and ambulatory care centers. Care was provided without cost to those meeting financial eligibility requirements and on a sliding fee-for-service scale for those above the eligibility standards. A small proportion of the eligible poor, about 10 percent, received care either from clinics in non-county hospitals or from private physicians under contracts with individual counties.

The spiraling costs of providing health care for the needy became an increasingly intolerable burden for the counties. A ballot initiative limiting county tax revenues in the late 1970s made it impossible to maintain the existing county fiscal arrangements. In 1981, state legislation was passed establishing the Arizona Health Care Cost Containment System (AHCCCS), and the U.S. Department of Health and Human Services approved cost-sharing with AHCCCS on a trial basis in lieu of Medicaid.

THE AHCCCS INITIATIVE AND ITS EVALUATION

The goal of AHCCCS is to provide the poor throughout the state with appropriate and equitable health care [1, 2]. Under AHCCCS, eligible persons are required to select a single provider in their locale from among the hospitals, health maintenance organizations, group practices, and private physicians holding state contracts based on earlier competitive bidding. "Contractors" are obligated to provide their AHCCCS patients with comprehensive health care for the capitation fee and to bear the financial risks involved in doing so. Although the legislation and the contractual arrangements are intricate, the underlying premise is simple: prepaid care, contracted for competitively—and operated with proper oversight—is the most cost-effective means of providing appropriate care for the state's poor [3–5].

Before adoption of AHCCCS, Arizona's counties had imposed restrictive financial requirements on recipients of publicly supported care: in general, only persons with family incomes of less than 50 percent of the national poverty level were eligible; for persons in large families, the proportion was less than one-third of the poverty level. Before AHCCCS, each county had its own eligibility requirements, with some variations in financial formulas. The AHCCCS initiative

did not change financial eligibility requirements substantially, except that they became uniform throughout the state.

Compared with the Medicaid eligibility requirements of most states, both before and after AHCCCS, all counties in Arizona have unusually low eligibility ceilings. For example, under AHCCCS the maximum income allowable for a family of four is $5,400. Both in 1982 and 1984, at the time of the surveys reported in this article, Arizona fell within the bottom one-quarter of the nation's states in comparing the number of persons eligible for publicly supported health services in a state with the number of persons with incomes at or below the federal poverty levels. (States at the median cover about 60 percent of persons at or below the poverty level compared with about 40 percent in Arizona [6].)

Although the fiscal eligibility requirements remain substantially the same, the prepayment aspect of AHCCCS has had an impact on enrollment and utilization opportunities. Both before and since the introduction of AHCCCS, families on Aid to Families with Dependent Children (AFDC) or on Supplemental Security Income (SSI) have been entitled automatically to government-supported health care. Persons whose eligibility is based on family income and assets, however—if they are to be covered—need to be aware of and to enroll themselves in AHCCCS before contact is made with a medical provider. Under the previous county system, eligibility processing for non-AFDC and non-SSI clients could occur simultaneously with or shortly after initial treatment in a county facility. But under AHCCCS, illnesses requiring ambulatory care do not entitle the eligible, noncategorical poor to enrollment, nor do they result in it. Further, no "retrospective determination" is available under AHCCCS, in contrast to many ordinary fee-for-service Medicaid programs. Thus, the impact of AHCCCS on persons in different welfare categories is an important issue considered in this article.

Under both the previous county and the current AHCCCS programs, the restrictive eligibility requirements have consigned a significant number of Arizona's poor to a so-called "notch" group, a population theoretically responsible personally for all or part of the costs of their care. The impacts of the initiative on both the state's eligible population and its notch group is another key policy issue examined in this evaluation. (The notch group has been defined arbitrarily as those persons with family incomes of less than 200 percent of Arizona's financial eligibility requirements for inclusion in the AHCCCS program.) In addition, since studies nationwide have documented social and demographic differences in access to care, our analyses are undertaken

with reference to age, ethnicity, and rural-urban residence, as well as by welfare category (AFDC, SSI, and medically needy or indigent) [7].

The selection of providers under AHCCCS has modified the sources of medical care for the poor covered by the program, and its statewide implementation may have changed the provider mix for the ineligible (or notch) group as well. While county sites remain to provide care for many of the poor under contract with AHCCCS, for-profit and not-for-profit providers are receiving capitation payments too. These providers are not likely to serve the eligible but unenrolled population, or the notch group, which probably will continue to use the county programs. Consequently, the impact of the initiative on the provider mix for the different groups is another interesting element under examination in this report.

The AHCCCS initiative itself specifies that enrollees are to have a choice of providers from among the contractors in their geographical area. It also mandates, among other provider requirements, that patients receive drugs for no more than 50 cents per prescription and that they be offered transportation to ambulatory care sites. The extent to which providers have been conforming to these requirements, as well as the comparative satisfaction of AHCCCS users before and after implementation of the initiative, are assessed prior to the conclusion of this report, to estimate the operational effectiveness of the program.

METHOD

This evaluation of the AHCCCS program is based upon two independent, cross-sectional telephone surveys of approximately 3,600 persons, the first conducted in the summer and fall of 1982 (before the program started), and the second in the same period during 1984 (after the program had been in operation for nearly 2 years).[1] In approach and data collection procedures, it is modeled after the 1982 national access survey of the Robert Wood Johnson Foundation [8].

Identical procedures were used to select participants for each of the two telephone samples. Using 1980 Census information, randomly selected self-weighted cluster samples of low-income families (with incomes below 200 percent of AHCCCS eligibility requirements) were drawn from census tracts or geographical areas with a 20 percent or greater density of low-income households. Each randomly selected household was screened, and those with incomes less than double the AHCCCS eligibility cutoff ceiling were included in the study groups. In each of these households, complete interviews were conducted with

an adult randomly selected; randomly selected children in the households were "surveyed" through use of household adults as informants. The completion rates among study group households, both in 1982 and 1984, were over 90 percent.

The surveys were undertaken by Louis Harris and Associates; interviews were conducted in both English and Spanish. The data presented here are weighted to account for the differing selection probabilities related to household size.

RESULTS

This first report on the implementation of AHCCCS is necessarily limited in the number of subgroup analyses that can be presented. Sufficient analyses, disaggregated by social-demographic and health-related measures, have been completed to ensure that the overall findings reported here generally pertain to the study group as a whole.

COVERAGE

For both years, the eligibility of each person surveyed was determined by an algorithm that took into account welfare category, income in relation to family size, and whether excessive medical expenses had been incurred that resulted in eligibility because of "spenddowns." During both periods, the large majority of eligible persons were on either AFDC or SSI; these persons were automatic AHCCCS enrollees, assigned to a provider if they had not selected one. The eligibility classification was limited, however, because it was based on welfare and economic status at the particular time of each of the surveys, and some persons during the interim obviously could have been moving back and forth between eligibility and ineligibility.[2]

Given the general similarity of the requirements during the two periods, it is not surprising, as reported in Table 1, that the proportion eligible varies little between the two time periods (51 percent in 1982, 57 percent in 1984). This difference in the proportion eligible is probably accounted for by the depressed economic situation in Arizona in 1982. The 1982 recession impacted most severely on marginal workers, increasing proportionately the notch group compared with the very poor whose economic status is not affected as much by short-term economic swings.

In 1984, 48 percent of eligible persons had been enrolled in AHCCCS sometime during the previous 12 months. As mentioned,

AHCCCS has a formal enrollment procedure. In order to identify the equivalent of "enrollment" in county programs in 1982 (since the counties generally had less formal enrollment procedures), the "enrolled" category was defined as all persons who either used county sites during 1982 or reported that a county site was their usual provider.

Among eligible persons in the 1984 study group, 11 percent fewer persons had been enrolled in AHCCCS in a 12-month period compared with the percentage of the 1982 study group "enrolled" in county programs during a similar period (59 percent in 1982, 48 percent in 1984). Of course, some proportion of those eligible among the 1984 study group might not have been aware of their eligibility if they had not sought ambulatory care after AHCCCS was put in place. (All AFDC and SSI recipients were notified by mail of their automatic AHCCCS enrollee status and, as mentioned above, were assigned to a provider if they failed to select one.)

A more stringent estimate of the impact of the program on coverage was undertaken to test the possibility that some of those eligible for AHCCCS were unaware of their eligibility, their need to enroll before seeking care, or the existence of the program itself. Coverage was compared for persons in each study group who had had one or more ambulatory visits in the year preceding the interviews. Providers after AHCCCS was in place would be unlikely to treat persons who were not enrolled, because these providers usually would not receive state reimbursement for services (the only exception would be reimbursement for the small number who received emergency care.) The findings appear to bear this out: in general among eligible persons, the proportion who are not enrolled in the AHCCCS program has been reduced significantly. If we consider only those respondents who made one or more visits during each of the 2 years, an 8 percent difference remains, nonetheless, in coverage under AHCCCS between 1982 and 1984.

At the time of the 1984 survey, only somewhat more than one-third of the eligible persons reported that they currently were covered by AHCCCS. Even among eligible persons who had made one or more ambulatory visits during the year before, only 42 percent reported that they were currently enrolled in the AHCCCS program. There may be individuals, of course, who were covered at the time of the survey but were unaware of it. In the two largest counties of the state, a second telephone survey of persons enrolled in AHCCCS was undertaken. Although these findings have not been fully analyzed, approximately 10 percent of the persons officially enrolled in the program did not report that they were so enrolled. Even when this

Table 1: Enrollment in County or AHCCCS Programs, Low-Income Population in Arizona, 1982 and 1984

	All Patients			*Patients with One or More Ambulatory Care Visits*		
	Eligibility Status			*Eligibility Status*		
	Eligible	*Not Eligible*	*Total*	*Eligible*	*Not Eligible*	*Total*
Percent eligible for county programs in 1982	51.2 (1884)*	48.8 (1771)	100.0 (3655)	54.5 (1284)	45.5 (1078)	100.0 (2362)
Percent eligible for AHCCCS program in 1984	56.5 (1922)	43.6 (1612)	100.0 (3534)	58.2 (1324)	41.8 (1026)	100.0 (2350)
Percent county patients, 1982	59.1 (1114)	38.8 (665)	49.2 (1779)	61.8 (798)	43.5 (447)	53.5 (1245)
Percent county patients, 1984	44.9 (862)	30.8 (470)	38.8 (1332)	52.3 (681)	35.9 (346)	45.5 (1027)
Percent not enrolled in AHCCCS	21.8 (400)	23.8 (378)	22.7 (778)	24.9 (302)	26.6 (274)	25.6 (576)
Percent enrolled in county AHCCCS plan	8.1 (152)	1.3 (20)	5.2 (172)	9.5 (126)	1.8 (14)	6.3 (140)
Percent enrolled in noncounty AHCCCS plan	15.0 (310)	5.7 (72)	10.9 (382)	17.9 (253)	7.5 (58)	13.6 (311)
Percent AHCCCS patients, 1984	48.2 (949)	18.2 (266)	35.1 (1215)	54.1 (736)	20.9 (191)	40.2 (927)
Percent currently enrolled less than 10 months	11.7 (223)	4.2 (61)	8.4 (284)	13.0 (170)	5.7 (49)	9.9 (219)
Percent currently enrolled 10 or more months	24.5 (515)	5.8 (92)	16.4 (607)	29.2 (417)	7.1 (68)	20.0 (485)
Percent previously enrolled	12.0 (211)	8.2 (113)	10.3 (324)	11.9 (149)	8.1 (74)	10.3 (223)

*Numbers in ( ) are unweighted *n*'s.

"unaware" group is taken into account, only about one-half of AHCCCS-eligible persons apparently are enrolled in the program.

The AHCCCS program has reduced markedly the proportion of eligible patients cared for in county ambulatory care centers. In 1982, almost 60 percent of eligible persons were county patients. This declined to 45 percent in 1984, and only 8.1 percent of the total eligible population reported enrollment in county-sponsored AHCCCS programs. The results are similar for those who had one or more visits during the past 12 months.

As will be documented subsequently, this reduction in use of county sites is accounted for to a considerable extent by a shift from

county to non-county sites for eligible persons in AHCCCS. To a large extent, eligible persons who were county patients in 1984 were non-enrollees in AHCCCS. Presumably, failure to enroll is related to a lack of awareness of AHCCCS eligibility, failure of persons not automatically enrolled to apply for the program, or inability to provide sufficient documentation to verify eligibility.

Among the notch group, 18 percent reported enrollment in AHCCCS during 1984; in contrast, 39 percent of this group had met the definition for county program enrollment at some point in 1982. When considering only those persons with one or more ambulatory visits, the measures are 21 and 43 percent, respectively. Former enrollees in AHCCCS ineligible at the time of the survey may well have been eligible during the period(s) of their enrollment, because, since its inception, the AHCCCS program has been diligent in excluding ineligible persons. AHCCCS requires applicants to document their income and family size by providing evidence of all expenditures and income and household composition. County health care administrators acknowledge that under the county programs screening for eligibility programs was comparatively lax [9–11]. The program's attention to minimizing ineligible participants is supported by the fact that only 10 percent of the ineligibles were enrolled in the program at the time of the 1984 survey.

In Table 2, coverage is reported by welfare category. In addition to providing the percentages enrolled in AHCCCS and in the county programs for the respective years, Table 2 shows the proportion receiving care from the county programs after AHCCCS was in place. Among AFDC and SSI families, coverage is roughly the same for AHCCCS in 1984 as it was for county programs in 1982, no doubt because of the automatic AHCCCS eligibility/enrollment of these families—and their earlier automatic inclusion in county programs.

Noteworthy, however, is a decline in coverage among the medically indigent and needy eligible. (The medically indigent and needy group consists of persons whose eligibility for AHCCCS is a consequence of low income and inadequate assets rather than AFDC or SSI welfare status; this group also includes persons whose extensive medical care costs place them in economic circumstances that permit AHCCCS eligibility.) Among this group, 32 percent were enrolled in AHCCCS at some time during the year, compared with 51 percent enrolled in the county programs in 1982. Only 19 percent of this group were enrolled in the program at the time of the survey. It is the undercoverage occurring in this group (i.e., eligible but not enrolled in AHCCCS) relative to the 1982 usage of county programs that accounts

Table 2: Eligibility Status and Participation in County or AHCCCS Program, Low-Income Population in Arizona, 1982 and 1984

	AHCCCS/County Program Participation	
	Reporting Enrolled (%)	*With One or More Ambulatory Visits Reporting Enrolled (%)*
AFDC		
County patients, 1982	76.5	79.1
County patients, 1984	53.4	58.0
Not enrolled in AHCCCS	10.3	12.0
Enrolled in county AHCCCS plan	16.3	16.8
Enrolled in noncounty AHCCCS plan	26.8	29.2
AHCCCS patients, 1984	78.7	84.5
Currently enrolled less than 10 months	19.2	20.0
Currently enrolled 10 or more months	49.5	54.0
Previously enrolled	10.0	9.5
SSI		
County patients, 1982	61.7	66.4
County patients, 1984	51.6	60.0
Not enrolled in AHCCCS	25.1	28.3
Enrolled in county AHCCCS plan	10.7	13.9
Enrolled in noncounty AHCCCS plan	15.8	17.8
AHCCCS patients, 1984	63.1	67.3
Currently enrolled less than 10 months	10.0	10.0
Currently enrolled 10 or more months	43.9	48.4
Previously enrolled	9.2	8.9
Medically Indigent/Needy		
County patients, 1982	51.3	53.3
County patients, 1984	39.9	47.8
Not enrolled in AHCCCS	25.8	30.1
Enrolled in county AHCCCS plan	4.2	5.0
Enrolled in noncounty AHCCCS plan	9.9	12.7
AHCCCS patients, 1984	32.3	37.2
Currently enrolled less than 10 months	8.9	10.5
Currently enrolled 10 or more months	9.9	12.8
Previously enrolled	13.5	13.8

primarily for the findings reported in Table 1 for the eligible group as a whole. From an operational standpoint, the medically indigent and needy are the most difficult to cover under a prepaid plan since they must initiate enrollment on their own during time periods when their income renders them eligible. They are not likely to seek to enroll when

their health does not require medical care, and, as mentioned above, for all practical purposes "retrospective" enrollment is not possible.

Also significant is the fact that AHCCCS did markedly shift the sources of care for all categories of the eligible poor. In 1982, for example, over 75 percent of AFDC recipients were enrolled in county programs (i.e., either they reported these programs as their usual source of care or used them one or more times during the preceding year); in 1984, only 16 percent of AFDC recipients were patients of county AHCCCS providers. Equally dramatic differences are found for the other welfare groups as well. However, eligible persons not enrolled in AHCCCS did continue to use county programs; among the medically needy and indigent, one-quarter of the eligible persons continued to use county programs on a non-AHCCCS basis.

The data on coverage were analyzed further by age, ethnicity, and residence (see Table 3). Among eligibles, persons over 65 were least likely to enroll in AHCCCS. This probably is a consequence of the large proportion of this group who also have Medicare benefits. Rather than enrolling in AHCCCS, they may have chosen to pay the deductibles themselves, or their physicians or community hospital outpatient clinics may have waived the deductibles in order to retain these patients in their practices.

Also, among eligibles, blacks are most likely to be covered by AHCCCS (66 percent), compared with Hispanics (48 percent) and whites (43 percent). These differences are probably due to a number of factors, including the immigration status of some of the Hispanics, past experience with public welfare and health care programs, and opportunities for receiving medical services without charge or at reduced rates from community physicians and non-county hospitals. Native Americans have the lowest coverage rate, explainable by the availability of Indian Health Service ambulatory centers in many of their communities. There are no urban-rural differences.

Within the ineligible group, the same findings generally prevail. The only difference for this group is that a larger proportion of Hispanic persons who were not eligible for AHCCCS at the time of the survey reported higher levels of enrollment compared to other ethnic groups. This may be related to the greater irregularity of employment among Hispanic persons, which has made them more likely to be eligible intermittently since AHCCCS has been in place.

In summary, the survey data reveal that the AHCCCS program has reduced coverage for both the eligible and the ineligible poor in Arizona. The reduction in coverage actually is somewhat higher than can be gleaned from the data presented in the tables. In addition to

Table 3: Percent of Eligible and Ineligible Using County Systems (1982) and Enrolled in AHCCCS (1984), by Age, Ethnicity, and Residence, Low-Income Population in Arizona, 1982 and 1984

	Currently Eligible Enrolled During Past Year		*Currently Ineligible Enrolled During Past Year*		*Enrollees Ineligible*	
	In AHCCCS (1984) (%)	*In County (1982) (%)*	*In AHCCCS (1984) (%)*	*In County (1982) (%)*	*In AHCCCS (1984) (%)*	*In County (1982) (%)*
Total Study Group	48.2	59.1	18.2	38.8	22.5	38.5
Age						
16 and under	52.4	60.3	23.7	35.4	22.5	34.4
17-64	48.2	62.4	18.5	42.8	22.8	39.0
65 and over	34.4	42.0	7.6	34.3	20.5	50.1
Ethnicity						
White	43.4	50.2	14.4	27.4	22.5	37.4
Black	66.0	71.9	11.3	46.7	6.3	26.2
Hispanic	47.8	61.4	21.3	43.9	26.5	41.1
Native American	37.9	55.1	15.1	43.8	15.7	35.7
Residence						
Rural	48.6	50.3	18.5	36.7	23.5	43.5
Urban	47.8	64.5	17.8	40.4	21.5	35.7

those enrolled in county programs in 1982, a small proportion (in the vicinity of 10 percent of both the eligible and ineligible groups) were receiving county-subsidized care from non-county providers.

For those who were AHCCCS-eligible, the decline in coverage was primarily among the medically indigent and needy, who could not be identified individually as eligible for the initiative. A greater proportion of this group probably were either unaware of the new program or did not apply for it.

Among the notch group, it would appear that the more rigorous eligibility screening under AHCCCS resulted in a decline in the use of public health care services. While both before- and after-AHCCCS eligibility was determined at a county level, the uniformly mandated state eligibility requirements increased the pressure on county staffs to follow the fiscal requirements. Consequently, fewer ineligible persons were inappropriately categorized. As noted earlier, this observation about differential rigor in eligibility determination is acknowledged by county health and welfare officials.

From the standpoint of AHCCCS program objectives, a fair con-

clusion is that AHCCCS approximates county programs in providing coverage for AFDC and SSI recipients, but that coverage is significantly lower among the medically indigent and needy. Overall, the AHCCCS program has failed to maintain the proportion of the eligible population covered by public programs.

AHCCCS demonstrably reduces overcoverage: a smaller proportion of the ineligible group was enrolled in AHCCCS or used county sites in 1984 than was enrolled in county programs in 1982. Whether the reduction in governmentally subsidized care for the notch group is a desirable outcome of the initiative or not is a matter that depends on one's "welfare philosophy."

RECEIPT OF AMBULATORY CARE

As reported in Table 4, the AHCCCS initiative had dramatic but differing impacts on the receipt of ambulatory health services, depending upon eligibility status and AHCCCS enrollment. Among those in the 1984 study group eligible for and enrolled in AHCCCS at the time of the survey, there was a 45 percent *reduction* in the proportion of those who reported no usual source of care, compared with persons in the 1982 study group who were eligible and enrolled in county programs. When persons who were in AHCCCS *at any time* during the 12 months preceding the survey were compared to the 1982 county group, the reduction in the proportion reporting no usual source of care was still 25 percent. Among the eligible population in the 1984 study group who reported that they were never enrolled in AHCCCS, a 71 percent *increase* was noted in the proportion reporting no usual source of care when compared with the eligibles in 1982 who had been using the county systems. When eligible persons not enrolled in AHCCCS in 1984 are compared with eligibles who did not use county programs in 1982, the proportion without a usual source increases by 21 percent.

Correspondingly, a 35 percent *increase* was found in the percentage of the ineligible persons in the 1984 study group who reported no usual source of care compared with the proportion who reported no usual source of care in the 1982 study group. This 35 percent increase can be attributed to the drop in the proportion of the notch group who used county sites after 1982, and to the smaller proportion who saw private doctors or were treated at non-county hospital ambulatory centers without paying for (all or part of) their care.

It is of interest that, when source of care is taken into account, a sharp increase is noted among eligible persons in the proportion who report as their usual source a "non-hospital clinic" (30 percent in 1984

compared with 18 percent in 1982). For the most part, this percentage shift is accounted for by the decline in the proportion of eligible persons in the 1984 sample, compared with 1982, who did not have a regular source of care and whose participation in AHCCCS swelled the ranks of users of non-hospital-based ambulatory sites.

Among those eligible for the state program in the 1984 study group and enrolled in AHCCCS at the time of the survey, compared with the eligibles in 1982 who used county systems, there was a 56 percent *reduction* in the proportion reporting that they did not visit an ambulatory care provider within the last year (see Table 5). The findings for the ineligible groups are more complex. Some 35 percent of those who used the county systems in 1982 reported no visits, compared with 41 percent of non-county patients in 1982. In 1984, some 31 percent of ineligible persons who had never been in AHCCCS made no visits. However, among ineligible persons who reported that they used the county system in 1984, the proportion who did not have a visit is only 21 percent. These percentages become interpretable only when the proportions enrolled in county programs, shown in Table 2, are taken into account. Between 1982 and 1984, an 8 percent decline occurred in the proportion of the ineligible group who used county programs; in the face of this decline, it is reasonable to suggest that those still using the county programs in 1984 included a higher proportion of persons with health conditions requiring attention and that, consequently, they actually did incur visits during the year.

Overall, among eligible persons, the average number of ambulatory visits was higher within the 1984 sample, compared with the 1982 study group. However, there are substantial differences in numbers of visits within the eligible group between those enrolled and those not enrolled in AHCCCS during 1984 (predominantly the medically indigent and needy). Among enrollees at the time of the 1984 survey, the average number of ambulatory visits was 7.3; in comparison, among those never enrolled during the year it was 4.5. These figures parallel the differences between eligible persons enrolled and those not enrolled in the county systems in 1982: among those enrolled, the average number of visits was 6.5; for those not enrolled, it was 5.0.

The relatively small but statistically significant difference in number of visits between 1982 county enrollees and 1984 AHCCCS enrollees is explainable by the increase in the proportion of persons among the enrollees who had one visit to a provider in each of the 2 years. Among those who had one or more visits and were enrollees in the county systems and in AHCCCS, there actually is an average decline of .8 visits. In other words, both the information on the proportion who

made no ambulatory visits, and differences in average number of visits (when the total study group is compared with those in it who had one or more visits), indicate that eligible AHCCCS enrollees were more likely to have provider contact but fewer actual visits. The findings are in line with AHCCCS program objectives, i.e., greater opportunity for ambulatory care but with the capitation constraint minimizing excess contacts.

Compared with persons eligible for AHCCCS, those ineligible show a marked difference in average number of visits. The sharpest difference is between eligible persons enrolled at the time of the survey compared with ineligible persons enrolled at no time during 1984. The average number of visits for eligible AHCCCS enrollees (7.3) is double that of ineligible nonenrollees (3.8). Among ineligibles, those who have never been in AHCCCS have an average ambulatory visit rate of 3.8, compared with a rate of 4.9 for those enrolled in the county systems in 1982, and one of 3.1 for those not enrolled in county systems in 1982. The average number of visits among ineligible persons who had one or more visits is consistent with these findings: a difference of an average of two visits can be traced between those who had never been enrolled in AHCCCS in 1984, and those enrolled in the county systems in 1982. Further, even among those whose usual sources of care during 1984 were county ambulatory sites, and who had one or more visits during 1984, the average number of visits is 5.6 compared with 6.8 in 1982.

In an effort to take health status into account, average rates of ambulatory visits for 1984 were analyzed among those who reported their health to be "fair" or "poor." While this self-report of health status admittedly is only a limited proxy for health status as revealed in medical examinations, it has been employed as a conventional means for grouping persons in terms of their medical care requirements. Among all of those in fair and poor health, eligible persons enrolled in AHCCCS averaged 11.0 visits, in comparison with 6.4 visits for ineligible, non-AHCCCS persons. Among those in fair or poor health who made one or more ambulatory visits, the average number of visits was 11.5 and 7.5, respectively.

Although not shown in tabular form, further analyses were undertaken controlling for age. The differences reported in Table 4 are less marked for the over-65 age group than for the total study group. Undoubtedly this is a consequence of the mitigating effects of Medicare benefits on the differences between the county and the AHCCCS programs.

In summary, nonenrollment in AHCCCS in 1984 depressed ini-

Table 4: Access to Care Indicators, by Year, Eligibility, AHCCCS Enrollment, County Use

	All Respondents		*Respondents in Fair or Poor Health*	
	Eligible	*Ineligible*	*Eligible*	*Ineligible*
No Usual Source of Care				
Total, 1984	16.0%	20.6%	11.6%	20.0%
Total, 1982	15.3%	15.2%	8.8%	12.0%
Was or is in AHCCCS, 1984	9.8%	12.5%	5.3%	9.9%
In AHCCCS at time of survey	7.2%	5.2%	4.1%	4.1%
Formerly in AHCCCS	17.9%	21.4%	9.0%	18.2%
Never in AHCCCS, 1984	22.3%	22.4%	19.4%	22.7%
Used county system, 1984	14.0%	21.5%	10.0%	22.5%
Did not use county system, 1984	17.6%	20.1%	13.0%	18.9%
Used county system, 1982	13.0%	10.4%	7.0%	9.9%
Did not use county system, 1982	18.5%	18.2%	11.5%	13.8%
No Ambulatory Visits in Year				
Total, 1984	23.3%	29.5%	12.9%	17.7%
Total, 1982	32.1%	37.5%	25.5%	25.3%
Was or is in AHCCCS, 1984	16.5%	23.0%	9.0%	12.7%
In AHCCCS at time of survey	13.1%	11.7%	6.4%	4.0%
Formerly in AHCCCS	26.9%	37.0%	17.4%	24.7%
Never in AHCCCS, 1984	30.1%	31.1%	17.9%	19.0%
Used county system, 1984	14.5%	20.8%	7.1%	12.2%
Did not use county system, 1984	30.2%	33.5%	17.7%	20.2%
Used county system, 1982	30.1%	35.0%	24.1%	21.7%
Did not use county system, 1982	31.8%	41.4%	27.7%	28.2%
Average Number of Ambulatory Visits				
Total, 1984	6.0	3.8	9.7	6.3
Total, 1982	5.9	3.1	9.1	5.9
Was or is in AHCCCS, 1984	7.1	4.2	10.9	6.3
In AHCCCS at time of survey	7.3	4.5	11.0	6.6
Formerly in AHCCCS	6.5	3.9	10.5	5.8
Never in AHCCCS, 1984	4.9	3.8	8.3	6.4
Used county system, 1984	8.7	5.0	13.2	7.1
Did not use county system, 1984	4.0	3.4	6.9	6.0
Used county system, 1982	6.5	4.9	10.0	7.3
Did not use county system, 1982	5.0	3.1	7.8	4.8
Average Number of Ambulatory Visits (Persons with One or More Visits)				
Total, 1984	6.9	4.8	10.7	7.3
Total, 1982	8.1	5.6	11.6	7.6

Continued

Table 4: Continued

	All Respondents		*Respondents in Fair or Poor Health*	
	Eligible	*Ineligible*	*Eligible*	*Ineligible*
Was or is in AHCCCS, 1984	7.8	4.7	11.6	6.7
In AHCCCS at time of survey	7.8	4.8	11.5	6.8
Formerly in AHCCCS	7.7	4.7	12.0	6.5
Never in AHCCCS, 1984	6.0	4.9	9.5	7.5
Used county system, 1984	9.4	5.7	13.7	7.7
Did not use county system, 1984	4.8	4.4	8.0	7.2
Used county system, 1982	8.6	6.8	12.4	9.0
Did not use county system, 1982	7.2	4.8	10.1	6.4

tial contacts with providers as well as the trajectory of future visits, especially when compared to 1982. The very poor who are enrolled in AHCCCS are provided with at least as much, if not more, access to care under the state initiative, and they are making use of the services provided them under the initiative. The notch group, however, has less access to care. Fewer report a regular source of care—and perhaps more important, their frequency of ambulatory visits is reduced, either because they are more likely to have to pay for their own care, or because it is more difficult for them to receive care at county ambulatory sites, or both.

USERS' PERCEPTIONS OF AHCCCS

The information reported in Table 5 indicates that among enrollees in AHCCCS, the vast majority perceive their AHCCCS site to be their usual source of care. Some 13 percent of AHCCCS patients currently in the program for 10 or more months report using non-AHCCCS providers during the year as well. This 13 percent includes some persons who have dual entitlements, including those on Medicare or those who can use the Indian Health Service. For most AHCCCS enrollees, however, their AHCCCS provider is their sole source of care. The extent to which AHCCCS enrollees do not perceive their AHCCCS provider as their usual source of care may be viewed as an indicator either of a lack of enrollee commitment to the prepaid plans or a failure of the plans themselves to communicate the availability of comprehensive primary care services to their enrollees.

However, three important provisions of AHCCCS have been implemented only partially, and one of them in a very limited way.

Under AHCCCS, enrollees are supposed to be given a choice of provider; this is reported to have been carried out in only 70 percent of the cases. Whether this shortcoming is related to a lack of enrollee understanding regarding choice of plan or to the unavailability of multiple plans for some enrollees is unclear.

In addition, under AHCCCS, enrollees are required to pay no more than 50 cents per prescription. However, approximately one in ten reported paying over the 50 cent limit per prescription while on AHCCCS. Moreover, AHCCCS plans are expected to provide transportation, if required, to ambulatory sites. Whether in practice they have or have not complied cannot be assessed from the survey data. It is clear, however, that the vast majority (well over 70 percent) of enrollees were not aware that their plans are supposed to offer transportation. This finding applies even among persons currently enrolled and participating in the program for 10 or more months and with one or more AHCCCS visits during the year.

At the same time, however, enrollees in AHCCCS did state that they were more satisfied with the care they received from their AHCCCS provider than from their previous one. (This question was asked only of those respondents who reported that they had had a usual source of care before their enrollment in AHCCCS). Among all AHCCCS enrollees, 58 percent were more satisfied with their AHCCCS provider than with their former one, compared with 20 percent who were more satisfied with their former provider than with the site that cared for them under AHCCCS. Similar results are found for persons with one or more visits to their AHCCCS provider. This analysis was undertaken separately to differentiate between persons who had switched providers and those who had not. The key group, of course, includes those who moved to new providers under AHCCCS: for them the percentages with respect to satisfaction are 62 percent "more satisfied," 25 percent "less satisfied" for all AHCCCS enrollees; and 68 percent "more satisfied," 23 percent "less satisfied" for those currently in AHCCCS with 10 or more months of coverage.

Similarly, AHCCCS received positive responses with respect to ease of reaching providers' ambulatory care sites—this despite the fact that most enrollees reported that their plans did not provide transportation. Among AHCCCS enrollees who had made one or more visits to their care sites, more than three times as many reported their AHCCCS site easier to get to than their former site; for persons who actually switched providers and had one or more visits, more than four times as many found their AHCCCS site easier to get to than their former site.

Table 5: AHCCCS Experience and Current AHCCCS Status

	All Enrollees				*Enrollees with One or More Visits to Their AHCCCS Provider in the Last 12 Months*			
	Currently in AHCCCS				*Currently in AHCCCS*			
	10 Months or More (%)	*Less Than 10 Months (%)*	*Formerly in AHCCCS (%)*	*Total (%)*	*10 Months or More (%)*	*Less Than 10 Months (%)*	*Formerly In AHCCCS (%)*	*Total (%)*
Enrollees who *do not* consider AHCCCS their usual source of care	4.8	8.2	20.1	10.0	2.7	7.1	10.6	5.0
Enrollees who *used* an out-of-plan provider	13.0	*	*	*	12.9	*	*	*
Enrollees *not* offered choice of plan	21.3	35.0	38.5	29.6	20.3	27.9	33.3	24.2
Paying *more* than 50 cents for prescription	7.7	10.0	8.5	8.5	8.6	8.5	5.1	8.0
Enrollees stating plan did *not* provide transportation	69.8	80.1	84.6	76.6	72.2	81.6	77.1	75.1
Enrollees *less* satisfied with care from AHCCCS provider than previous provider	17.4	13.0	28.3	19.7	18.6	9.9	23.0	17.4
Enrollees *more* satisfied with care from AHCCCS provider than previous provider	63.6	65.2	42.5	57.7	62.7	68.2	48.1	61.7
Enrollees stating *more* difficult to get to AHCCCS provider than previous provider	15.7	21.9	31.6	21.4	15.5	23.2	23.0	18.5
Enrollees stating *less* difficult to get to AHCCCS provider than previous provider	64.5	65.2	57.3	62.8	61.0	66.1	63.5	62.6

*Indicator not calculated, as subsample includes respondents with significant utilization before or after enrollment.

In summary, then, enrollee reports offer clear evidence that satisfaction with health care has increased under AHCCCS and that there is general adherence to program guidelines with respect to offering a choice of provider and setting prescription prices at no more than 50 cents. Enrollees, however, have been generally unaware that AHCCCS plans are required to provide transportation to their provider sites. Thus, the operational effectiveness of the program could bear improvement. If transportation, in particular, is to remain a provision of AHCCCS, enrollees need to know that it is available for them.

CONCLUSIONS

This evaluation of Arizona's AHCCCS program took place after the plan had been in effect for less than 2 years. All large-scale initiatives have problems during early implementation, and AHCCCS certainly is no exception. The program, originally administered by a for-profit contractor, encountered major managerial difficulties during its first year—problems well documented in the mass media [12–14]. Presumably, these problems are being remedied by the state agency which now administers the initiative. Moreover, a number of providers underestimated the costs of providing prepaid care: the largest provider in the state is in Chapter 11 bankruptcy reorganization, the fourth-largest has been closed down by the state, and others are in the process of recapitalization and revision of management structures.

Despite the fiscal and organizational difficulties that AHCCCS has faced during its early implementation, it continues to receive political support, and the program expects the Health Care Financing Administration waiver to be extended for 2 additional years. On balance, AHCCCS has at least partly met its program objectives. From the standpoint of access to health services, the initiative appears, for the large majority of program enrollees, to be at least as appropriate a way to provide health services as the county systems that were in place before its inception. Indeed, it is fair to characterize the initiative as an improvement over the former system of county programs in terms of indicators of access to ambulatory health services and their use, and in reports of patient satisfaction.

Limitations, however, have been revealed in the program's operations. There appears to be significant undercoverage of the medically indigent and the medically needy—groups hard to enroll since there is no way to do so unless these persons are aware of the initiative and of

their part in initiating enrollment. Moreover, administrative oversight can be improved. While only a small proportion have reported that prescriptions cost them more than the mandated 50 cents, the fact that this has occurred at all indicates that the plan was not fully implemented. If transportation is going to be continued as a provision of the plan, increased awareness of this benefit needs to be developed.

The initiative does provide Arizona with federal cost-sharing for the health care of its very poor, a resource previously unavailable because of the state's nonparticipation in Medicaid. At the same time, because of the low financial eligibility ceiling for AHCCCS enrollment, it has intensified the problems of access to care for the ineligible poor. The findings clearly document that the notch group is less well off in terms of health care than it was in 1982.

There is no ready political and financial solution to the access problems of the notch group. When the income/assets eligibility ceiling for AHCCCS is doubled to define this group, this higher ceiling lies parallel to the national poverty level or below it—forming a population about as large as that which meets the eligibility requirements for AHCCCS. One approach to reducing the size of this group might be to raise the state's eligibility ceiling for cash assistance. For the working poor, another option is to implement enrollee-employer-state shared funding.

Neither a marked increase in the ceiling for cash assistance, nor an expansion of AHCCCS eligibility, nor any other approach considered to date, appears to be a viable alternative. The economic implications for the state, if it opted for any of these strategies, would be great, and politically difficult in these times of reduced public support for social programs—particularly in a state that is generally regarded as fiscally conservative.[3] Undoubtedly, Arizona will continue to have a sizable "notch" group of the poor, largely dependent on county hospitals for their care.

The AHCCCS initiative has resulted in a number of direct and indirect consequences in terms of provision of health care for the notch group at county hospitals. First, most of the eligible population is now cared for in non-county AHCCCS plans, depriving county sites of part of their patient population and economy-of-scale operating efficiency. Second, and of most concern, is the impact of AHCCCS on the fiscal resources of the county programs. The levels of support that the health departments now receive from their county governments are significantly less, when their current medical care obligations are taken into account, than were the amounts formerly provided. If they are not AHCCCS providers, these county health departments must provide or

subsidize ambulatory and inpatient care for both notch group patients and nonenrolled AHCCCS eligibles.

As a consequence, county programs either have to ration care, one way or another, or more vigorously pursue collection of fees from the notch group. Both strategies represent access barriers for the notch group. Moreover, being an AHCCCS provider actually may further strain county hospital resources. In an effort to bid competitively against other providers, at least some county programs underbid their actual costs. As a result, they may compensate by subsidizing care for their AHCCCS enrollees from their county-provided operating budgets—even if it means minimizing services to the non-AHCCCS eligibles and the notch group. Finally, the state-wide AHCCCS program has focused attention on the enforcement of eligibility requirements, reducing opportunities for persons in the notch group to "pass" as members of the eligible population.

From a public policy standpoint, even if the potential of AHCCCS is realized—to meet creatively the health care needs of the *very* poor, it is not enough. A workable solution must be sought for providing appropriate and comprehensive health care to the notch group as well. The state and its counties must face up to the health care needs of all of its poor.

NOTES

1. A major design decision was to rely on telephone rather than face-to-face interviews. In addition to cost, the decision was based on the difficulty of recruiting interviewers willing to go into neighborhoods that present clear personal security risks. Telephone interviews also allow closer supervision of the sampling and interviewing process.

   It is recognized that a certain percentage of the poor, especially in rural areas, do not have telephones and cannot be included in a telephone survey. The 1980 U.S. Census reports that in urban areas of Arizona, over 90 percent of households have telephones; in rural areas from which the samples were drawn, between 80 and 90 percent have a telephone. It should be remembered, too, that a portion of the poor also are missed in face-to-face interview surveys, either because of difficulty of access in both urban and rural areas or because of fear on the part of both respondents and interviewers.
2. No direct way exists to test the accuracy of the eligibility classification, which possibly is vulnerable to misreporting by interviewees. However, there is indirect evidence that it is reasonably accurate. A second telephone survey was undertaken of persons known to be enrolled in the AHCCCS program of the state's two largest counties. Comparison of the findings between the two samples for persons in these counties revealed only chance

differences on the indicators reported on in this article, suggesting the appropriateness of the classification. As discussed in the results section of this report, the major discrepancy between interviewee reports and enrollment status as recorded in the state's management information system is that 10 percent of those who supposedly enrolled do not report that they are in AHCCCS. A significant proportion of this group represents automatically enrolled AFDC and SSI clients who have not had contact with a provider since AHCCCS was put in place, or who are unaware of their enrollment because of their just-recent placement on AFDC or SSI.

3. Since the submission of this report, the Arizona legislature has raised the cash assistance levels for AFDC recipients. It is too early to estimate the impact of this change on AHCCCS enrollment or on the notch group.

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