

An Evaluation of Subsidized Rural Primary Care Programs: III. Stress and Survival, 1981–82

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Abstract: Surveys of a national sample of 193 subsidized rural primary care programs were conducted in 1981 and 1982 to determine what adaptations the programs might anticipate making given a reduction in their subsidy and what actual changes they made after the implementation of new federal policies and in the face of severe economic recession. During the period between the two surveys,

nine of the 193 programs closed. The remaining programs changed elements of their operation, finances, and staffing, but these changes do not, in all cases, appear to be a direct response to subsidy reductions or increases. The programs exhibited adaptiveness and strength in the face of a potentially hostile environment. (*Am J Public Health* 1984; 816–819.)

Introduction

During 1979–82, the United States faced a severe recession accompanied by high inflation, while power in Washington, DC was transferred to a conservative President and control of the Senate passed to generally more conservative Republicans. In 1981, the Reagan Administration budget proposals called for a 25 per cent reduction in federal funds available for subsidized primary care programs—rural and urban.

By 1982, the Administration had begun to implement its plans to reduce federal support of many social programs. Among those affected were the community health centers, National Health Service Corps (NHSC), and other grant programs supporting rural health care. The cutbacks were not made on an across-the-board basis. Individual community programs were evaluated according to a needs assessment procedure. Some programs were left largely untouched while others suffered deep cuts, leading to closure or absorption into other programs.¹ The National Health Service Corps shifted its emphasis toward the placement of physicians in private practice option (PPO) practices and away from placement in community programs where the Corps would pay the practitioners' salaries.² At the same time, many states were announcing plans to reduce Medicaid payments and tighten eligibility standards in order to make up for a shortfall in tax revenues and decreased federal support of social programs.³ All of these policy shifts were exacerbated by high unemployment, high interest rates, and continued recession.

In 1978, the Health Services Research Center at the University of North Carolina at Chapel Hill undertook a major national evaluation of subsidized rural primary care programs. As part of this evaluation, a national random sample of 193 such programs was surveyed in 1981. Because of the potentially debilitating stresses placed upon these programs during the year after the first survey, a number of questions arose concerning their ability to survive and function. Did the political and economic changes affect the programs' funding? If so, did this, or other factors affect

their staffing, service mix, and operations? Were the programs forced to reduce access? And, would it be possible to detect if there were any changes in the quality of care given in the programs? A subsequent survey was designed as a follow-up to the 1981 survey in order to answer these questions.

Methods

The general conceptual framework and methods of the larger national evaluation study have been described previously.^{4–6} The study sample includes 193 rural primary care organizations providing services since 1978 or earlier that received government or foundation financial support at some point in their history. These were randomly selected from 464 programs in the United States meeting our study criteria.

In 1981, each of the 193 programs was surveyed by telephone and mail questionnaires concerning their services, staffing, governance, utilization and financial policies, costs, and revenues. The follow-up survey included questions similar to those used in the 1981 telephone and mail survey instruments except that programs were asked about what changes they actually made in their operations, finances, governance, and staff.

A major feature of the national evaluation was the categorization of subsidized rural programs into five major organizational forms using an algorithm based on provider complement, governance, and the provision of outreach services.⁶ The organizational forms and the number of each type in the sample are: comprehensive health centers (CHC) [n = 29], organized group practices (OGP) [n = 45], primary care centers (PCC) [n = 77], institutional extensions (IE) [n = 24], and others (OTH) [n = 18]. The utility of this typology was borne out by subsequent analysis which showed that each form exhibited consistently different patterns of location and operation and different levels of outcome, particularly with respect to the financial indicators of self-sufficiency and cost per encounter.*

In 1982, contact was made with 184 (95 per cent) of the programs. It was verified that the remaining nine had closed. Of the 184 still operating, four declined to fully participate in the resurvey; they became or had been private practices and felt they no longer should provide information.

The follow-up telephone survey did not yield consistently accurate data as to the extent of external funding changes.

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Programs were classified into one of the three categories on the basis of a net increase or decrease of at least 5 per cent in outside funding as perceived by the informant.

Results

Anticipated Strategies and Their Implementation

In 1981, all programs in the sample responded to questions regarding what they would do in the face of a 25 per cent reduction in outside funding or in Medicare and Medicaid reimbursement levels. Few programs (8 per cent) indicated they would close. Forty-nine per cent of the clinics anticipated reducing their staffs, 36 per cent anticipated cutting services, 40 per cent foresaw raising fees, 34 per cent visualized increasing collections, and one-fourth of the programs saw themselves as having to increase overall utilization or the proportion of insured and self-pay patients. Many programs anticipated using a combination of response strategies.

In 1982, none of the programs that had anticipated closure actually closed; 58 per cent of those that predicted they would have to reduce staff did so; 13 per cent that anticipated reducing services did so; and approximately two-thirds of the programs that felt they would have to raise fees, increase collections, or increase utilization, in fact, implemented such strategies.

Changes in Funding

When queried in 1982, many of the programs had had grant funds reduced or cut off totally. It should be noted, however, that a report of curtailment of funding in any category might mean that a program's fixed period of funding may have ended, NHSC personnel departed as scheduled, or the program "went private" and did not apply for further funds as well as the program losing federal money because of Administration policy.

Table 1 summarizes the net funding changes for programs by organizational form and self-sufficiency ratio (SSR) for fiscal year 1980. Programs that did not receive outside funding in 1981 and 1982 were included in the category "unchanged" with regard to funding. One hundred and four of the programs (54 per cent) had some form of net reduction in their outside funding defined as a greater than 5 per cent

decrease during the year. Among organizational forms, there was very little difference in the percentage of programs with net decreases in funding. Programs with low self-sufficiency ratios (SSR) in 1980 were more likely to either receive a funding increase or to close than other programs, and programs with high self-sufficiency ratios were most likely to have a decrease in outside funding.

The nine closed programs were equally distributed in the three regions of the country defined by the National Evaluation protocol as Southeast, West, and North. Most of the closed clinics were part of multi-site programs.

Of 104 programs reporting net funding reductions, 80 also reported some form of revenue enhancing strategy. The most common approaches were to intensify efforts to collect at the time of the visit with 73 programs implementing this strategy; 65 programs increased collection rates, 62 increased utilization, and 51 increased fees. Seventy-one of the programs with funding reductions tried one or more cost-reducing strategies, the most common (48 programs) being a reduction in staff size; the next most common strategy (39 programs) was a general belt-tightening in the form of reducing inventories of supplies, cutting down on overhead expenses such as electricity, or modifying purchasing.

Programs reporting increases in outside funding also made efforts to operate more efficiently. Thirty-two of the 43 programs with funding increases attempted one or more revenue enhancing strategies and 21 tried to cut costs. The methods used closely followed the pattern of the programs which suffered funding reductions. Programs that reported net increases in funds turned to local and state governments and fund raising more often than programs that suffered reductions or continued to receive external funding at their 1981 levels; this may have been a cause of the increases rather than a result (we do not have the data to answer this question).

Overall, 92 per cent of programs tried to increase revenues and 83 per cent tried to reduce costs. The fact that, in general, those programs with net increases and those with net reductions in external funding reacted similarly could be interpreted to mean that constraints on the primary care programs came from the general economic environment as well as from specific policy and funding changes by governments and benefactors. It might also be that the observed changes were, to some extent, likely to represent the normal maturation of the programs particularly in terms of the sophistication of their administration.

There were important differences among organizational forms in the strategies chosen to reduce costs and increase revenues. Comprehensive health centers were more prone to use some form of cost cutting strategies and to look to state and local governments and community fund raising for additional support.

There were differences in the revenue adjustment methods used by programs at differing levels of self-sufficiency. Those programs able to cover less than a third of their costs with patient care revenues were four times more likely to turn to state and local governments for additional funding; moreover, operational changes were made by these programs at the same rate as the others.

Concern has been voiced by many that the trend toward tightening state Medicaid programs might have severe effects on rural primary care programs.⁶ The administrators or other knowledgeable informants were asked during the follow-up survey whether these changes did affect their programs; 35 per cent indicated there was some effect although

TABLE 1—External Funding Changes in 1981–1982 by Organizational Form and Self-Sufficiency Ratio as of 1980* (193 Rural Primary Care Programs)

Organizational Form	Funding Change (No. Programs)			
	Decrease**	Unchanged	Increase**	Closed
Organized Group Practice	24	9	11	0
Community Health Center	15	5	9	0
Primary Care Center	41	14	17	5
Institutional Extension	14	4	3	3
Other	10	4	3	1
TOTAL	104	36	43	9
Self Sufficiency Ratio*				
0–33	28	6	19	5
34–66	31	10	13	3
67–100	36	13	8	1
Incomplete Cost Data	9	7	3	0

*SSR = $\frac{\text{Total cost} - \text{dental costs}}{\text{Total income} - \text{dental income}}$ as of Fiscal Year 1980.

**Net decrease or increase of at least 5 per cent of total outside funding.

the general impression was that the impact, up to the time of survey, had been minimal.

Changes in Services

In 1981, programs were asked if they offered services in eight clinical, four access, and three ancillary categories. A year later they were asked if any changes had been made in these service offerings and whether they were seeing more or fewer patients in each category. Table 2 summarizes these changes.

More programs cut clinical services than added them in six of eight categories, with a slight net increase in the number of programs offering in-hospital obstetrics by their staff. There were net increases in all three categories of ancillary services but a loss in three of four access categories. A large majority of programs reporting changes in usage for 10 of the 15 total categories reported increases as opposed to decreases in utilization except for transportation.

Changes in Ownership and Nonprofit Status

The programs in our sample were classified into three categories:

- *Public-Nonprofit* (n = 152)—the program was incorporated as a nonprofit organization, was receiving some outside subsidy, and the governance of the program rested with a community board or elected body;
- *Private-Nonprofit* (n = 18)—the program did not receive outside funding in 1982 (or 1981 and 1982), and was incorporated as a nonprofit organization but with no board or only a consulting board; and
- *Private-For-profit* (n = 23)—the program was a private practice in 1982 (or 1981 and 1982).

All nine of the 193 programs operating in 1981 that had closed in 1982 were public-nonprofit. One of the public-nonprofit programs changed its status to private-nonprofit.

The 1982 ownership and profit status of the programs were related to four economic measures for 1980 (Table 3).

TABLE 3—1980 Financial Indicators for Rural Primary Care Programs by 1982 Ownership and Profit Status

1982 Category	Self-Sufficiency Ratio	Average Cost per Encounter	MD Productivity (Encounter/FTE/Year)	NHP Productivity
Private, for profit	.76	\$24.47	5028	2122
Private, nonprofit	.82	23.78	5394	2806
Public, nonprofit (open)	.46	30.38	4389	2576
Public, nonprofit (closed)	.27	30.94	4619	4044

The programs that closed had an average self-sufficiency ratio in 1980 of 0.27, well below the total sample average of 0.53. The private programs had higher self-sufficiency ratios, lower average costs, and higher physician productivity in 1980. The fact that the closed sites had the highest new health practitioner productivity raises important questions about the implications of their use in the clinics.

Changes in Financial Characteristics

The sources of income of the programs and the insurance coverage of program users stayed quite stable over the year despite some cuts in Medicaid and a general reduction in disposable income during the year. Potential sources of extra revenue from higher charges (\$14.64 to \$16.02 for the most common office visit), more intensive efforts to collect at the time of visit, and a higher percentage of income from hospital activities were counterbalanced by a higher average percentage of patients using sliding fee scales and lower overall collection rates. There was also a slight average overall reduction in the percentage of users with Medicaid coverage (20.4 per cent to 18.8 per cent) which may reflect the influence of tighter eligibility rules despite higher general unemployment and a depressed economy.

TABLE 2—Changes in Clinical, Ancillary, and Access Service Offerings, 1981–1982 for Rural Primary Care Programs in Operation in 1982 (n = 184)

Service Offerings	Total Programs Offering Service in 1981	Number of Programs Eliminating Service	Programs Adding Service	Net Change	Programs Reporting Increased Usage 1981–1982	Programs Reporting Decreased Usage 1981–1982
Clinical						
Prenatal Care	161	8	6	-2	75	16
Family Planning	181	8	4	-4	79	17
Dental Care	96	12	6	-6	40	5
Home Health Care	99	9	9	0	37	11
Mental Health Care	109	22	10	-12	34	5
Social Services	87	17	5	-12	21	4
Well Child Care	172	3	0	-3	80	17
Uncomplicated Deliveries in Hospital	166	0	2	+2	28	4
Ancillary						
X-ray	105	7	19	+12	NR*	NR
Complex laboratory procedures	77	10	31	+21	NR	NR
Pharmacy	71	8	16	+8	NR	NR
Access						
Outreach	106	11	17	+6	17	11
Transportation	97	12	7	-5	7	12
Weekend/Evening Hours	124	23	10	-13	NR	NR
24-Hour Phone Coverage	166	11	8	-3	NR	NR

*NR—Not reported.

The trend for all of the patient and income characteristics described above held across organizational form, the direction of growth of subsidy, and programs' ability to cover costs in the past. The remarkably similar adaptations taken by all of the programs suggest that general economic conditions and pressure on the programs to improve their fiscal postures were the predominant influences upon their operating policies.

Discussion

It is possible that by 1982 the changes in federal health policies and the recession had not yet exercised their full effect upon the rural programs. Nevertheless, the extent and nature of the changes which programs introduced and their general robustness during 1981-82 are notable. The programs studied had reached a relatively mature stage by the time of the resurvey; all were at least four years old because of inclusion criteria. Their apparent strength may be due to their developmental histories and the fact that they were subsidized during their early years of operation. There are no data on similar samples or populations of primary care clinics with which to compare the closure rate of 4.7 per cent found in our sample.

The substantial changes made in the way the programs operated appeared to be unrelated to their degree of dependence on outside funding or changes in outside funding levels. While almost all of the programs were able to reduce costs in some way, comprehensive health centers were more likely to reduce staff, salaries, and services without concomitant attempts to increase revenues from patient fees and collections while the organized group practices and primary care centers were more likely to try to increase their revenues from patient fees by raising them and collecting more intensively than to reduce costs or seek outside funding.

This difference is open to at least two interpretations. First, the comprehensive health centers may have had more organizational "fat" available for elimination during times of stress. The alternative interpretation would be that the CHCs had no other way to cope with a more constrained fiscal environment than to reduce staff and services since their clientele, with heavy representation from the poor and minority groups, perhaps could not be squeezed for more money. This was occurring at the same time the Medicaid programs in most states were reducing eligibility levels and payments. Our sample of comprehensive health centers reported seeing, on average, twice the number of Blacks and Hispanic patients than the sampled primary care centers, and three times the number seen in the sampled organized group practices.

Whether the overall attempt at economic retrenchment by the clinics affected access to or the quality of health care for the poor and minorities is a crucial issue which our data do not address directly. The programs reported that the racial and ethnic mix of the patient user population remained stable among all three organizational forms; that the percentage of patients qualifying for and using the sliding fee scale instead of paying full fees rose over the year; and that there was very little change in the mean total number of users in each program (1981 \bar{x} = 5431, 1982 \bar{x} = 5424).

It was anticipated by most of those interested in rural health services programs that the broadly focused cuts in federal and state funding which began in 1981 would produce major curtailments and disruptions in these programs. Our data show that for rural programs this did not occur for the most part in the first year after the new federal policy was announced, due, in part, to the selective nature of the cutbacks. Although approximately half the programs suffered a decrease in outside funding, about one-fifth had their subsidy increased and, for the remainder, the size of the subsidy was unchanged.

Unless and until public payment programs cover the costs of care of the entire needy population, those programs which serve rural communities with a relatively high proportion of people who are at or below the poverty line will clearly require continued subsidy if they are to continue serving the health care needs of their target populations. If the health care achievement of such programs is to be maintained, the challenge to government is to develop a policy for the continued support of these programs at a level that is both economical and effective.

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