An Evaluation of a Model Health Plan for the Medically Needy in Multnomah County, Oregon

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OWNERSHIP OF THE MULTNOMAH COUNTY HOSPITAL was transferred to the State of Oregon in 1973. This facility had been the primary resource for the care of the medically indigent in the county, which contains the city of Portland. County funds totaling $4 million, formerly spent on the hospital, were committed to the purchase of mainstream health care for the medically indigent—those who did not quality for welfare (Medicaid) and lacked adequate resources or health insurance to pay for health care. The Multnomah County experiment, called Project Health, started providing some services for the medically needy in selected community hospitals in 1973.

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The main purpose of Project Health is the design of a "brokerage" program for purchase of comprehensive coverage in prepaid health plans. In 1975, the county government negotiated with major health insurers and health maintenance organizations (HMOs) to obtain contracts for provision of a uniform set of benefits to Project Health enrollees. (Benefits include unlimited hospital inpatient, outpatient, and physician services and limited mental health and extended care. Drugs are included, but dental care is not.) Enrollment began in January 1976. By 1979, six organizations were participating—Kaiser-Permanente; Cascade Health Care, a closed-panel family health center plan; Providence and the University of Oregon Family Practice Program, two hospital-based plans; Portland Metro Health, Inc., a newly qualified, independent practice HMO; and Blue Shield, an insurance plan sponsored by Oregon Physician Services (OPS). In 1979, OPS dropped out of the Project Health program because of a large increase in the applicable premium that apparently was caused by the selection of the OPS plan by a disproportionate number of enrollees with chronic health conditions and high rates of use. Project Health

officials are concerned that such differential selection of OPS or an open-panel plan by high-cost patients may decrease the number of plans competing and increase average premiums.

Persons seeking financial assistance for health care are counseled about Project Health benefits, and then they are referred to a State Adult and Family Services Division (AFSD) office for eligibility determination. Eligible persons are referred back to Project Health counselors, who describe the various prepaid health plans, the available coverage for episodic care, and the operation of Project Health. The counselors also explain to each applicant the benefits, plan characteristics, and member's monthly premium under each prepaid plan. When an applicant selects a participating plan, he or she receives a membership card to be used in the receipt of all covered services in that plan. Applicants are not identified as Medicaid recipients and are not required to reveal themselves as such when receiving services. Thus, any stigma of public assistance is removed from the patient-provider encounter.

When Project Health enrollment lagged behind early projections, the county undertook a marketing campaign to encourage applications. This campaign, in the fall of 1977, produced a 247 percent increase in enrollees in the county-financed program for those who did not meet Federal Medicaid eligibility requirements. However, enrollment in the county-financed program was curtailed in January 1978 because of budget constraints. The medically needy enrollment grew less than 1 percent in the same period, and less than 10 percent of the projected population was reached. This situation may be attributed to the difficulties in projecting populations meeting Medicaid criteria or to alternative sources of health care funding, including Medicare and free care available to portions of this population.

The population enrolled in the medically needy program during 1977–78 contained a higher portion of disabled (22 percent) and a lower portion of AFDC families (48 percent) than the statewide welfare rolls. Acceptance of the prepaid plans was high—85 percent of the AFDC and 67 percent of the disabled. In the county-funded population, active marketing increased acceptance rates for prepaid options above the already

high rate—from 85 percent to 91 percent during 1 month of the marketing effort.

When applicants select a particular plan, they are charged a monthly enrollment fee that is based on income, family size, and the contract rate negotiated between Project Health and that plan. For a family of 3 with an annual income of $5,600, the enrollment fee in 1977 ranged from $5 a month for the least expensive plan to $28 for the most expensive. This variable fee is intended to make the enrollee aware of the difference in cost among the plans and thereby create price competition among the plans as they vie for enrollment. Enrollment data for the 3 years of Project Health show an increasing preference among enrollees for the lowest cost plans. Enrollee months reimbursed in Kaiser increased from 28.8 percent in 1976–77 to 40 percent in 1978–79 (estimated) of total prepaid months and decreased in OPS from 40.5 percent to 36 percent in the same years. Overall, enrollee months shifted from high-cost to low-cost plans by 8.1 percent. The 80 percent collection rate of the enrollment fee suggests client satisfaction with the Project Health approach.

Enrollees not qualified for a prepaid plan receive coverage under a fee-for-service arrangement, referred to as the episodic plan. Most of these recipients are enrolled during an episode of acute illness for which they are hospitalized because they do not qualify for such coverage under the prepaid contracts. Project Health enrollees who are supported entirely by county funds must enroll in a prepaid plan if they are eligible—these are medically indigent persons who do not fit into the categories recognized under Federal "Welfare" programs—aged (over 65), disabled, blind, and families with dependent children (AFDC). However, because of Oregon's interpretation of the freedom-of-choice requirements under Title XIX (Medicaid) of the Social Security law, Project Health enrollees supported by Medicaid funds can refuse a prepaid contract and choose the episodic plan. Participants in this plan pay no enrollment fee. Despite the opportunity to elect the premium-free episodic plan, 72 percent of all Medicaid enrollees in Project Health and 85 percent of those in the AFDC category chose a prepaid plan (May 1978 enrollment figures).

Many State Medicaid programs have offered recipients the opportunity to enroll in HMOs, usually the closed-panel type. Generally, only one or two such options are available to recipients in a geographic area. A full range of prepaid plans, including an insurance model, has never been offered to the medically indigent, and the enrollees have never been charged a share of the premium based on the total cost. The availability of prepaid coverage for the disabled and the elderly under Project Health is even more of a departure from the normal practices. HMO contracts with State welfare departments usually are limited to AFDC families, a group with lower medical care needs. In Oregon, the AFSD began offering the Kaiser and Cascade HMO plans to AFDC cash recipients in the Multnomah area. In 1978, enrollment in these plans was about 9,200—25 percent of the AFDC cash grant recipients and 21 percent of the total Federal welfare cash recipients in Multnomah County.

The State of Oregon has never offered Medicaid coverage to medically needy persons. Thus, Project Health, through a combination of Federal, State, county, and recipients' funds, offers a benefit not previously available to the medically needy in Multnomah County.

Waivers of the Federal Medicaid law and regulations allow the Project Health experiment to:

- offer benefits in a limited geographic area, rather than statewide,
- offer hospital coverage up to 365 days a year, whereas State welfare recipients are limited to 21 days a year,
- charge enrollment fees that vary with the cost of the program selected, and
- not limit reimbursement to standards prescribed for hospitals and physicians in the standard Title XIX program.

Project Health offers a possible model for the purchase of medical care for Medicare and Medicaid recipients and ultimately for a national health insurance system. The following are noteworthy elements of the program:

- an active attempt by the managing agency, through an enrollment counselor, to enroll a recipient in a prepaid plan of the client's informed choice,
- a means of offering consumer participation in the payment for health services by charging an enrollment fee that makes the enrollee aware of the price differential in various methods of health care delivery (welfare recipients enrolled in HMOs receive no economic benefit if Medicaid costs are reduced by their participation in the prepaid plan),
- a vehicle for active price competition between prepaid plans serving the Medicaid population,
- a system that permits local management of health care for the poor without the need to develop extensive medical claims processing systems, and
- a means of making Medicaid expenditures more

stable and predictable (by negotiating fixed rates each year that include any increases in price and use).

Ultimately, anyone considering the Project Health model must ask if the system provides health care for the poor at costs below those to be expected in fee-for-service models. In June 1978, Project Health and the Oregon Adult and Family Services Division commissioned a detailed evaluation of the Project Health Medicaid experiment, specifically analyzing the medically needy client group. In May 1978, medically needy persons enrolled in Project Health totaled 2,247—1,085 under Aid to Dependent Children, 668 under Old Age Assistance, and 494 under Aid to the Blind and Disabled. (An additional 2,775 medically indigent persons not meeting Medicaid categorical criteria were supported by county funds and Public Health Service 330 grant funds.) The evaluation of the Project Health experience with the medically needy population addressed a number of questions of significance to Federal, State and county governments; in particular, the comparison of per capita health care costs given brokerage through Project Health with the costs of the fee-for-service portion of the standard State Medicaid program.

Evaluation Methods

The evaluation methods used basically consisted of computing the program costs of the alternative models of providing health care to the medically needy and comparing their per capita medical benefit costs. The study was focused on three likely alternative medically needy programs:

- A statewide medically needy program administered by the Adult and Family Services Division in the same manner that medical assistance to the categorically needy is currently administered in Oregon. This model was based solely on fee-for-service payment data and excluded the State's Kaiser contract. This model is labeled AFSD Statewide.
- A fee-for-service program in Multnomah County based on the current AFSD system. This model is labeled AFSD—Multnomah.
- A brokerage program for Multnomah County. This model is labeled Multnomah Project Health.

Within each type of program for the medically needy, several variants were considered. Specific programs were defined in terms of the scope of medical benefits provided, the income ceiling for eligibility to participate, and the extent of marketing efforts.

To project the total cost of a particular program, a cost projection model was used, which is represented by the following generalized equation:

$$C = \sum_{s=1}^{n} \sum_{i=1}^{3} P_i [1+R] [1+I_s] U_o c_o + \sum_{i=1}^{3} P_i CAP_i$$

where

C = costs of medical benefits provided, and
P_i = enrolled population in each of three categories (AFDC, AB and AD, OAA)
$i = 1$ = eligible for aid to dependent children (ADC)
$i = 2$ = eligible for blind and disabled (AB, AD)
$i = 3$ = eligible for old age assistance (OAA)
R = annual change in use, different for each service
U = per capita use of a service
s = number of medical services to be evaluated
I_s = estimated rate of inflation in health care costs, different for each service
c = unit cost of a service
CAP_i = average capitation payment for enrollees in prepaid health plans in each of three categories (OAA, ADC, AB and AD)

Thus, the methodology included the estimation and aggregation of the products of (*a*) the projected per capita use of the population receiving services on a fee-for-service basis and the unit costs of various services provided to this population, and (*b*) the enrolled prepaid population and the average capitation payment for those enrolled in prepaid health plans.

AFSD (fee-for-service) models generate costs in the first term of the equation only. Project Health, with an episodic population in addition to those enrolled in prepaid plans, shows an entry in each term of the equation.

Data. Most of the data used in this analysis were derived from the payment records of Project Health and the AFSD Medicaid program. The data used in the projections of the enrolled population were obtained from the 1970 census, Oregon State income tax returns, and Project Health enrollment records.

Estimation of the enrolled episodic population. To project the enrollment of the medically needy population (P), the poverty population was estimated, the percentage of this population who would meet the specific eligibility criteria was determined, and enrollment rates based on the historical experience of Multnomah County and that of States other than Oregon were ascertained. Thus, the enrolled population variable was defined as:

$$P = [(TRF_{1976} \times \frac{LIP_{1970}}{TRF_{1970}}) \times PFWC - (CAR + ASEX)] EER \times \% TE_t$$

where

TRF_{1976} = number of tax exemptions filed in 1976 (for specified income brackets)

LIP_{1970} = number of persons with low family incomes in 1970

TRF_{1970} = number of tax exemptions filed in 1970 (for the same income brackets)

$PFWC$ = percentage of poverty populations in the prime Federal welfare categories (aged, AB, AD, AFDC)

CAR = number of cash assistance recipients

$ASEX$ = number of persons that are excluded owing to excess assets

EER = expected enrollment rate

$\%TE_t$ = percentage of total expected enrolled persons at time of t

Estimation of per capita use. To define this variable, the total number of services (S) in a period was divided by the total number of recipients (n) in the same welfare category; that is, S/n. The average per capita use of each medical service was determined for each category of recipient. Records were available to calculate this use ratio for AFSD fee-for-service Medicaid recipients and for episodic program enrollees in the medically needy group at Project Health. Utilization data were not available from most prepaid plans and not required because of the methodology used. A special analysis was performed to determine the cost of hospital benefits in excess of the 21 days per year allowed by AFSD. Costs of these extra benefit days were 7.8 percent of inpatient hospital expenditures in the OPS prepaid plan (the only prepaid plan with available use data) and 30.3 percent of total hospital days paid out of the episodic plan (a result consistent with the use of the episodic program as a form of catastrophic health insurance). The following comparison of observed use rates for Project Health episodic and AFSD programs in fiscal year 1978 confirms the high rate of inpatient utilization in the episodic program, which suggests use as a form of catastrophic coverage.

Aid program	*Inpatient days per year*	*Outpatient annual visits*	*Physician annual visits*
Dependent children:			
Project Health[1]	2.25	.86	1.42
AFSD	.64	.84	2.86
Disabled and blind:[2]			
Project Health[1]	2.48	1.09	1.60
AFSD	2.11	1.23	3.09

[1] Episodic. [2] No Medicare.

To translate from the experience of the cash grant in the AFSD model to the projected experience of the medically needy, per capita use (S/n) for AFDC was increased by 20 percent, a ratio derived from the comparison of per capita medical costs for cash grant and medically needy recipients in States that offer Medicaid assistance to both groups. This same evidence suggests no significant differentials between cash grant and medically needy recipients in the AD and OAA categories, and AFSD use experience is projected directly to the medically needy in these categories in the AFSD model.

Determination of unit costs of medical services. The values of unit costs of medical services were ascertained on the basis of historical medical service costs. The costs of prepaid insurance were also computed on the basis of historical data. The unit cost of each medical service was inflated by rates derived from a review of past experience and projections by State health planning agencies, medical associations, and various publications.

Administrative Costs

Costs for the AFSD and Project Health programs were based on available historical expenditure and budget data and were projected separately from medical service costs. Direct comparison between AFSD and Project Health costs is not possible because AFSD has handled eligibility determinations for all medically needy applicants. Thus, Project Health costs include enrollment counseling and marketing, claims and premium payment, and program management, including the negotiation of prepaid contracts.

Results

Per capita costs of the brokerage model (Project Health) and the traditional welfare model (AFSD) were compared. This comparison eliminated distortions that may have been introduced by variations in the projected total number of enrollees in a program (projections based on 1978 data). Per capita costs for basic benefits in a statewide AFSD program were 7 percent more than the per capita costs of Project Health in Multnomah County projected for fiscal year 1982.

If the AFSD model is applied to the Multnomah County population alone (in fiscal year 1982), the expected differential increases to 20 percent. This increase occurs because Multnomah County is expected to have a larger proportion of disabled enrollees, and the apparent savings from the use of the Project Health model are greatest in the disabled category—$672 or 33 percent per enrollee per year. The expected differential in the costs of benefits for the elderly is less

($81 or 9 percent), but the AFDC population shows a slightly lower per person cost in the AFSD model ($10 or 1 percent).

A critical reason for the lower per capita costs determined for Project Health was the success to date in brokering prepaid policies that enrolled all members under age 65 (AFDC, AD, and AB) with each contractor at a rate (which varies with family size) comparable to the community rates under which the plans now accept non-group enrollment from the general population. (Project Health enrollees over 65 may elect prepaid programs that cover services not provided under Medicare.) Figure 1 shows the enrollment in the programs and the projected per person medical costs for fiscal year 1982. If Project Health were unable to continue the joint AD-AFDC premium, the results of the analysis would change significantly.

The original comparisons were made for fiscal year 1982 because this would be the first year in which all models would reach a stable population. Per capita medical beneft costs can be calculated for earlier years by use of existing enrollment figures for Multnomah County. If the per capita medical benefit costs for fiscal year 1978 are compared, the Project Health-Multnomah model costs $548.44 per person, $18.91 or 3.4 percent less than the AFSD model. Because of inflation and a greater increase in the use of services by the fee-for-service population, this differential grows to 20 percent in 1982 (from $906.83 to $1,087.18). If we deflate these figures by using 1978 unit costs and prepaid premiums, but allow for projected utilization increase, the Project Health model would be 19 percent less expensive. Comparisons of current and deflated costs are shown in figures 2 and 3.

Comparison of the per capita costs of various programs in the same year eliminated many of the uncertainties resulting from population projections and expected rates of change in use and health care costs. However, the conclusion, showing a lower per capita cost for Project Health, is sensitive to the assumptions that (*a*) for the aged and disabled, average use for cash grant and nursing home cases combined approximate use by the medically needy in the community at large (in Oregon, the nursing home patient use is included with that of non-nursing home recipients), (*b*) rates for the fee-for-service system will be allowed to increase at the same rate as medical inflation, and (*c*) prepaid programs will continue to negotiate combined premiums at or near community rates. With the loss of the OPS program, other plans must be willing to accept former OPS enrollees without a disproportionate increase in the premiums charged to Project Health.

Figure 1. Comparison of enrollment and projected per person medical costs in two Oregon programs for the medically needy, fiscal year 1982

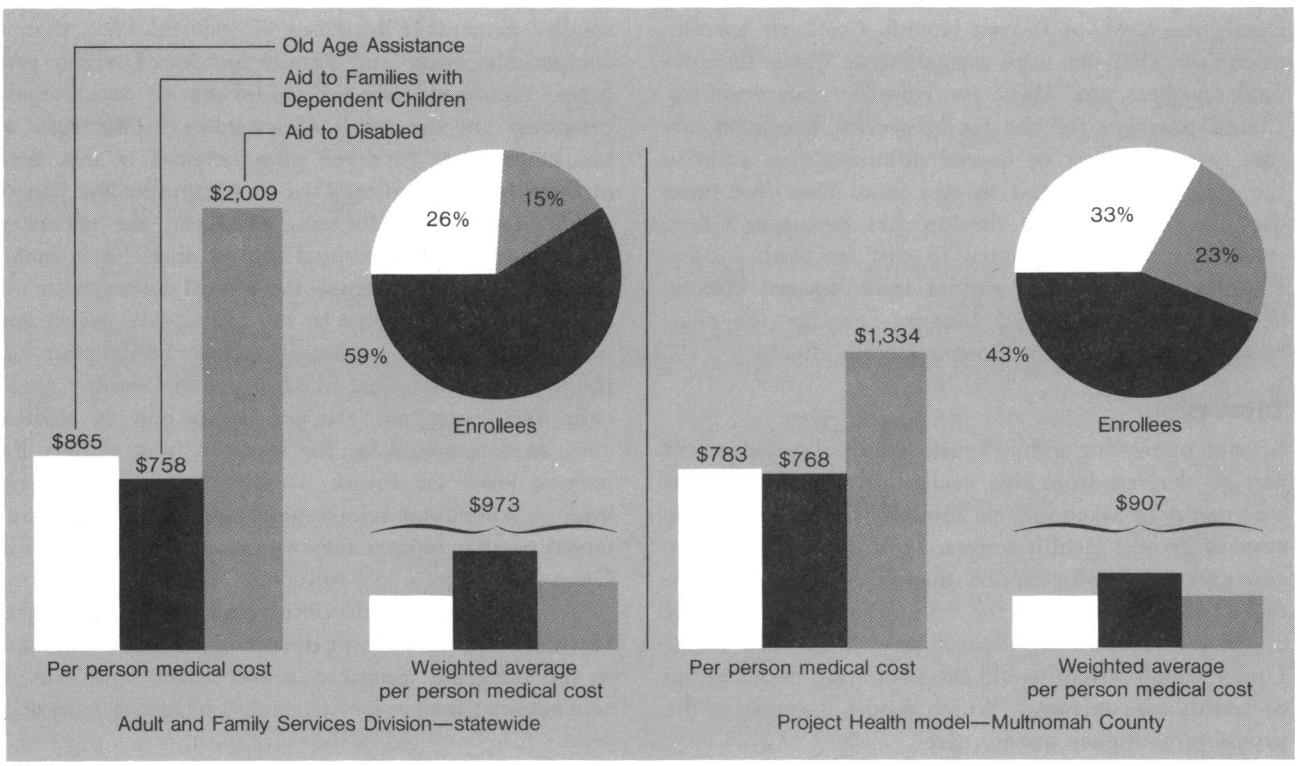


Figure 2. Comparison of per person medical costs in two Oregon programs for the medically needy, 1978–82

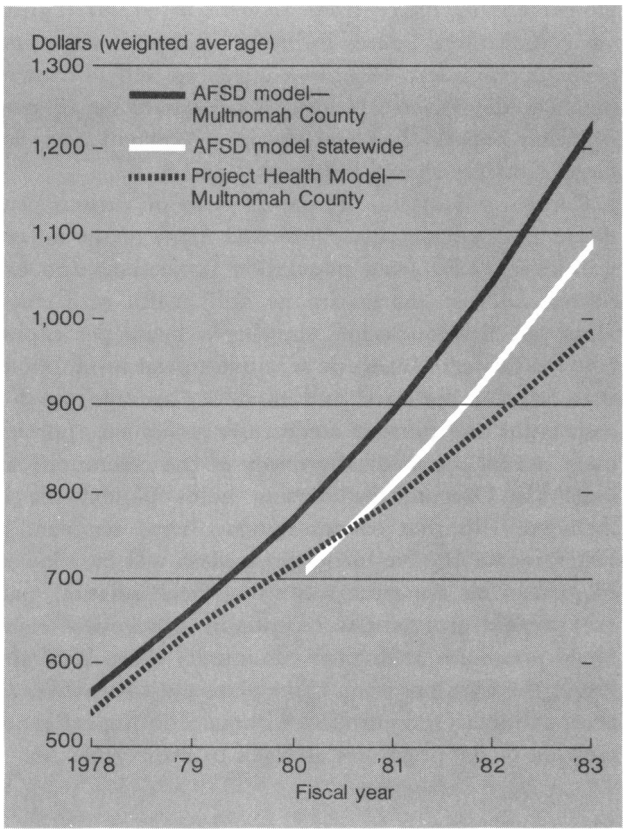
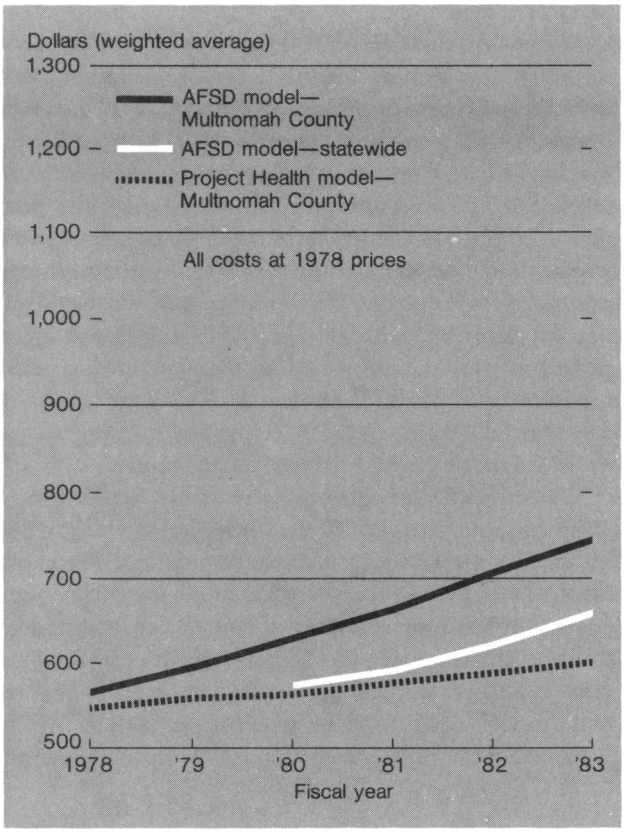


Figure 3. Comparison of per person deflated medical costs in two Oregon programs for the medically needy, 1978–82



Comparison of administrative costs also shows some interesting contrasts. The claims payment function is clearly less costly at Project Health. Costs per enrollee month in 1979–80 were estimated at $1.61 for prepaid enrollees and $6.77 for episodic plan enrollees. Claims payment for the fee-for-service Medicaid system was estimated to exceed administrative costs in the episodic system and to cost more than five times the payment costs for the prepaid program. Client services were also estimated to cost less with Project Health, but these costs cannot be compared directly because the State AFSD program handles the eligibility determination for Project Health clients.

Discussion

Several interesting public health care policy inferences can be derived from this evaluation. Some questions that might be asked include the following: How do the costs of Project Health compare with the costs of more conventional fee-for-service models of medical assistance? How effective is the unique brokerage concept of Project Health in controlling health care costs? Under which system would the poor have better access to health care services? Which model encourages the provision of higher quality care?

This analysis shows that a brokerage program such as Project Health may be expected to experience smaller percentage increases of medical costs than a comparable Adult and Family Services Division program. Increased costs for fee-for-service and prepaid programs are the result of increases in the costs of medical services rendered plus increases in use. Both of these factors were applied in computing the cost of the fee-for-service programs. However, the effects of these factors are combined into a single cost factor for prepaid plans, because the risk of increases in use and unit costs are borne by the third-party payers and incorporated in the community rate set by the plan. For the population enrolled in Multnomah County's medically needy program, the per capita cost of medical care, as determined by the research, was already 3.4 percent lower for Project Health than it would have been in a fee-for-service system operated on the same model as that offered for cash assistance recipients in Oregon.

The results suggest that Multnomah County's Project Health brokerage system can indeed provide health care to the medically needy at a cost lower than that of conventional fee-for-service models of health care delivery.