

Medicaid

Medicaid has become Massachusetts' preeminent budget buster. The largest single program in the budget, it will most likely account for 20 percent of total state expenditures in FY1991 and be the most important source of spending increases between FY1991 and FY1995. According to Massachusetts Senate Ways and Means Committee projections, after soaring over 30 percent from FY1990 to FY1991, the state's Medicaid expenditures will continue to grow over twice as fast as projected revenues through FY1995.¹

But Massachusetts is not alone. Medicaid is producing budgetary headaches all across the country. As in the Commonwealth, Medicaid is the largest individual program in many state budgets, and, as in the Commonwealth, represents a growing share of total expenditures. In the country as a whole, Medicaid vendor payments have grown from 14 percent of direct general expenditures in FY1975 to 18 percent in FY1989. Nevertheless, the state and local government share of national health care spending has declined since 1975. Apparently, the states are being swept along on a swelling tide of national health care spending that has risen almost 40 percent faster than GNP over the last 25 years. Just 6 percent of total output in 1965, total health care expenditures now account for more than 11 percent of GNP, a considerably larger fraction than in any other industrialized country.

This article will begin by reviewing why governments have a role in providing health care for their citizens. Because the forces driving Medicaid spending nationally affect individual states, the next sections will explain why the Medicaid program has become a substantial burden for Massachusetts and other state governments and why that burden is likely to increase. The article will then examine why Massachusetts' Medicaid expenditures are well above average and will outline some choices that policymakers may be forced to consider in the immediate future.

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As the state with the third highest per capita personal income, Massachusetts has developed an exceptionally comprehensive Medicaid program. For this reason, Massachusetts' policymakers have the option—disruptive though this choice might be—of rescinding or reducing existing benefits. At one extreme, eliminating all benefits permitted but not required by the federal government would ostensibly reduce state government spending on Medicaid by as much as two-thirds. The cost—financial, medical and emotional—of these public sector savings would fall primarily on elderly and disabled individuals whose assets had been depleted by uninsured medical and long-term care expenses. However, some of these public sector savings would undoubtedly resurface either within Medicaid itself or in other programs that are fully state-funded. (Half of Massachusetts' Medicaid expenditures are reimbursed with federal matching funds.) Some of these public sector savings would also resurface as additional uncompensated care that would, in turn, lead to increased charges to private patients and to higher insurance premiums. In other words, individuals will pay for health care for the indigent either through higher tax bills or through higher medical and insurance bills.

If the state's policymakers determine that a major restructuring of the Medicaid program is unwise, they have limited room to maneuver. A remaining option involves promoting best-practice delivery and reimbursement systems to minimize unneeded care and increase efficiency. However, because Medicaid operates as part of state and national health care systems, it cannot be reformed in isolation. Achieving ongoing savings within Medicaid requires controlling costs throughout the health care system.

I. Why Government Has a Role in Health Care Finance

Governments generally play an important role in the provision of health care. Indeed, in most developed countries the government's role is much larger than it is here in the United States. Among the major developed countries public financing accounted for 77 percent of all medical care expenditures in 1987. In the United States the comparable figure was 41 percent.

Most basically, governments have an interest in the health of their citizens—just as they do in the education of their citizens—because a healthy popu-

lation represents a more productive work force. Increased productivity and other benefits of good health spill over from one individual to other members of society without (full) compensation. Altruism, or avoiding the cost of altruism, offers another motive for government involvement with health care. Most high-income societies do not allow sick people to languish unattended; thus, governments either become the provider of last resort (or, over time, first

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resort) or they force/encourage people to save against the risk of ill health.

The sizable uncertainties surrounding an individual's need for health care have led industrialized societies to pool their risks by developing health insurance. Pooling risks allows a society to economize on the savings required by the risk of ill health, compared with the amounts that would be required if each individual were to self-insure. However, because individuals left to their own devices tend to underestimate how much medical care they will need or what it will cost at that time, they also tend to underinsure (Summers 1989). In addition, insurance providers know less than the insured about the likelihood of their needing health care. If adverse selection occurs, with only the riskiest individuals choosing to insure themselves, then these insurance policies become very expensive, and private markets may remain underdeveloped. For all of these reasons, government mandate or subsidization of private health insurance represents one model of government involvement with health care. The United States follows this tradition with much of its social insurance provided through the workplace in the form of mandatory programs (Medicare, Part A) or subsidized fringe benefits (health insurance). Accordingly, obtaining medical insurance and medical care becomes a serious problem for the unemployed or self-employed.

Because of the link between health insurance and the workplace found in this country, the government

pays directly for medical care for poor people who cannot reasonably be expected to work. This group includes children and their caretakers, the elderly and the disabled. Medicaid is the means-tested program providing this care.

When governments lift most of the cost of ill health from individuals—either through government payment or private insurance—much unneeded medical care may result. If patients bear no cost, they will demand any medical service that yields even a small benefit. If providers get paid in full for any and all services rendered, they are likely to recommend every procedure that might prove helpful to the smallest degree. Medical ethics, professional pride, and malpractice suits reinforce this outcome. Under these circumstances, then, the social costs of medical care are likely to outstrip individual benefits by substantial amounts—especially given the technological intensity of today's medicine.

Whether governments pay for medical care directly (as in the United Kingdom and Canada) or indirectly through subsidized health insurance (as in the United States, at least in part), they are currently under pressure to curb waste and rising health care costs. Government options include: 1) asking consumers to share the costs through deductibles and co-payments; 2) forcing providers to share the risks, as in prepaid HMO programs; 3) rationing health care, as in the application of cost/benefit analysis.

Since cost/benefit spillovers and market failures appear to justify some role for government in providing health care, the question becomes, which level of government is most appropriate to the task? According to some observers, the scope of the spillovers, the generality of the market failures, and issues of equity suggest that the responsibility for setting health care policy belongs with the national government rather than at the state level. Although regional differences in the need for medical facilities or in the cost of health care services clearly exist, a national program should be able to account for such variations. A series of congressional mandates expanding Medicaid coverage for poor children and, to a lesser extent, the elderly suggest that national policymakers see a growing need for the federal government to define minimum public sector responsibilities for health care.

On the other hand, advantages to be gained by locating responsibility for health care (like education) at the state (or local) level include allowing for: 1) variations in the desired amount of public support; 2) differences in regional views concerning ethical

issues (abortion, the right-to-die and so forth); and 3) experiments in administering the health care system. With most societies groping to find some means of controlling spiraling medical costs, state initiatives in developing alternative delivery and reimbursement systems serve a useful purpose.

II. Medicaid: The Program

Medicaid is a jointly funded federal/state program that provides health care to specific categories of poor people. It became law in 1965 as part of the Social Security Act. The federal share varies inversely with state per capita income and in 1989 ranged from 50 to 80 percent. (In Massachusetts, the state-federal split is 50/50.) Within federal guidelines, each state administers its own program and has considerable discretion in determining eligibility criteria, the amount and scope of the services provided, and the rates and methods of reimbursement. Accordingly, Medicaid coverage of the indigent population and expenditures per recipient vary considerably from state to state.

Eligibility

The original federal guidelines required states to provide Medicaid coverage to poor children and their mothers (recipients of Aid to Families with Dependent Children, AFDC) and to poor aged, blind and disabled individuals (now generally recipients of Supplemental Security Income, SSI). These groups are known as "categorically needy." Gradually, federal requirements have extended Medicaid coverage to related groups. Most recently, for example, the new federal budget package requires a gradual extension of Medicaid coverage to all children under 19 in families with incomes below the federal poverty level.² In addition, the states may choose to provide Medicaid coverage, with federal support, to others who are part of the same "categorically needy" groups but who have somewhat higher incomes.³

The states also have the option of providing Medicaid coverage to "medically needy" people. Under this option, individuals may "spend down" to meet Medicaid eligibility criteria. They "spend down" by incurring medical or remedial care expenses that reduce their remaining income and liquid assets to a level below that allowed by their state's program.

As a result of these federal guidelines, childless

adults (under age 65) who are not disabled are not eligible for Medicaid no matter how low their income or how high their medical expenses. In addition, because states can and do set their eligibility requirements below the federal poverty level, many poor families do not qualify for Medicaid. In 1989, Medicaid coverage of the categorically needy (generally AFDC and SSI recipients) amounted to just over half of the poverty-level population. Including people impoverished by medical expenses and covered by current medically needy programs (in the numerator but not in the denominator) brings the share to 68 percent. (See Table 2 below.)

Among the 17 states examined in this study,⁴ the

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share of the state's poverty population covered by its categorically needy program ranged from 85 percent in Vermont to 35 percent in North Carolina. Nationally, the span is even wider. As a result of these differences, some high-income states with relatively broad Medicaid coverage receive more in federal matching funds for their state Medicaid program than their residents contribute, through federal tax payments, to federal support for Medicaid; in other words, the variation in state programs results in a transfer of funds from some comparatively poor to some wealthy states. Massachusetts is one of the high-income states with a net inflow of Medicaid funds.

Dual Focus

By default, not by design, Medicaid has developed a split personality. It provides—as intended—acute/preventive care to specific categories of the vulnerable poor. It has also become the nation's primary long-term care program for people who fit the Medicaid categories, some of whom become impoverished by paying privately for long-term (gen-

erally nursing home) care. Although not its original focus, long-term care has grown as a share of Medicaid expenditures and in 1989 accounted for over 40 percent of Medicaid payments—made on behalf of less than 7 percent of the recipients. While most long-term care recipients are elderly, the mentally retarded represent another important and very expensive group. In 1989 residents of institutions for the mentally retarded accounted for less than 1 percent of all Medicaid recipients but for 12 percent of Medicaid payments.

Medicaid became the nation's primary long-term care program because Medicare, the nationwide health insurance program for the aged and certain disabled, provides very limited coverage for long-term care. Legislators have feared that including long-term care coverage within Medicare would overburden the already strained resources of the Medicare program. Accordingly, while Medicare paid 2 percent of nursing home care in 1988, Medicaid paid 44 percent.⁵

The complexions of the two programs differ significantly. Medicare is a social insurance program to which people contribute while they are working and from which they are entitled to draw earned benefits as the need arises. By contrast, Medicaid is stigmatized as a welfare program for the not-always-deserving poor. It can be painful, thus, for the middle-class elderly to be faced with huge nursing home costs, often exceeding \$30,000 a year, and then be forced to turn to Medicaid, after exhausting the accumulated assets of a lifetime.

III. National Trends: Why Medicaid Is a Growing Problem for State Governments

According to a widely held view, Medicaid spending is largely driven by changing demographics and a growing need for long-term care for the aged. The elderly account for a growing share of the population, the argument goes. And the elderly are very expensive Medicaid recipients, in part because they are important consumers of long-term care. Because Medicaid is the provider of last resort for long-term care, a large share of this burden falls to the states.

Demographics

The pieces of this argument are all valid, but the conclusion is not. The elderly do indeed represent a growing share of the population. And the share of

the oldest old (individuals 85 and over, and the group most likely to need long-term care) is rising even faster. In the last 25 years, the U.S. population grew by about one-third, the elderly population nearly doubled and the oldest old tripled. These trends are projected to continue. The oldest old accounted for 1 percent of the population in 1980; they are expected to account for almost 2 percent in the year 2000 and for 5 percent by 2050. Recent research indicates that one out of four people who reach their eighties is likely to develop Alzheimer's disease or some other form of dementia. Victims of dementia often become unable to care for their physical needs and eventually need round-the-clock supervision.

As the popular view maintains, the elderly are also relatively expensive Medicaid beneficiaries. Medicaid payments per aged recipient equaled \$5,900 in 1989 compared to \$2,300 for the average recipient, in large part because of the elderly's need for nursing

home care. Although much elder care is provided informally on an unpaid basis and although private individuals pay out-of-pocket for half of all nursing home care, Medicaid provides 90 percent of the long-term care financed by government. Accordingly, while state (and local) governments accounted for 10 percent of all personal health care expenditures, they paid for 20 percent of nursing home care in FY1988. In other words, the growing need for nursing home care places a disproportionate burden on the states.

Nevertheless, from 1975 to 1989 the rapid aging of the population was not the driving force behind Medicaid's expansion, and the growing need for long-term care contributed only modestly. As Table 1 shows, the aged actually declined as a share of all recipients between 1975 and 1989, and payments to the aged fell as a share of total payments over this period. While payments for nursing home care rose

Table 1
Share of Medicaid Recipients and Payments, by Category, FY1975 and FY1989
Percent

Category	United States				Massachusetts			
	Recipients		Payments		Recipients		Payments	
	1975	1989	1975	1989	1975	1989	1975	1989
Aged:	16.4	12.4	35.6	32.4	22.3	18.0	42.5	42.8
Categorically needy	13.5	9.3	21.4	18.7	10.9	8.3	8.8	7.6
Medically needy	3.0	3.0	14.2	13.7	11.5	9.6	33.8	35.2
Disabled:	10.7	14.3	24.9	36.8	10.7	16.2	21.4	36.1
Categorically needy	9.3	12.9	19.6	29.2	8.2	13.5	15.1	22.9
Medically needy	1.4	1.4	5.4	7.6	2.5	2.7	6.3	13.1
Blind:	.5	.3	.8	.7	1.3	1.4	1.3	2.4
Categorically needy	.4	.3	.6	.6	.4	1.4	.4	2.4
Medically needy	.1	0	.2	.1	.9	0	.8	0
AFDC Child:	43.6	41.8	17.9	12.1	39.4	36.0	19.2	7.1
Categorically needy	39.8	37.5	15.6	10.3	37.2	31.6	18.0	6.3
Medically needy	3.8	4.3	2.2	1.7	2.2	4.4	1.2	.8
AFDC Adult:	20.6	22.7	16.8	11.8	18.4	21.5	9.0	8.6
Categorically needy	18.9	19.9	15.7	10.4	17.4	17.6	8.4	7.0
Medically needy	1.7	2.8	1.1	1.4	1.0	3.9	.5	1.5
Other	8.2	8.5	4.0	6.3	7.8	7.0	6.7	3.1
Memo:								
All Nursing Facilities	6.3	6.8	38.4	40.7	9.7	8.8	46.5	46.8
ICF/Mentally Retarded	.3	.6	3.1	12.2	.4	.7	8.1	12.4
All Other	6.0	6.2	35.3	28.5	9.2	8.1	38.4	34.5

Note: ICF = Intermediate Care Facilities.

Source: U.S. Health Care Financing Administration, State Medicaid Data Tables for FY1975 and FY1989, June 21, 1990. Based on data from HCFA form 2082.

slightly in comparison to the total, the growth of payments to intermediate care facilities for the mentally retarded more than accounted for this change. Massachusetts shows much the same picture: the elderly declined as a share of recipients, although total payments to the elderly rose slightly compared with the total. In Massachusetts, too, expenditures for nursing homes took a larger share of the total only because payments for facilities for the mentally retarded rose exceptionally fast.

What explains this surprising outcome, given the demographic trends? Part of the explanation is that Social Security and private pensions have succeeded in reducing poverty among the elderly.⁶ In 1967 29.5 percent of the aged lived in poverty. In 1988 the comparable figure was 12.0 percent. Accordingly, a smaller proportion of the elderly now qualify for SSI and, thus, for Medicaid. In addition, the medically needy aged remained a constant share of total Medicaid recipients. Many of the medically needy aged have Medicare coverage for a large share of their acute care needs and pay for part of their nursing home expenses out of current Social Security and private pension income. Support from these other sources helped to hold the growth of Medicaid payments per medically needy aged recipient to a below-average pace over this period.

In addition, the growth in payments for the elderly was heavily overshadowed by a huge increase in expenditures for the disabled. As Table 1 shows, the disabled greatly increased as a share of the recipient pool, and in particular, as a share of total Medicaid payments during the 1975-89 period. As the memo item in Table 1 indicates, much of the increase in the share of expenditures devoted to the disabled reflects the jump in payments to intermediate care facilities for the mentally retarded (ICF/MRs), already mentioned. This surge followed 1972 legislation extending Medicaid coverage to services provided by ICF/MRs that meet federal standards. Medicaid coverage for the mentally retarded is almost completely limited to these (usually large) special purpose residential institutions. Accordingly, state governments encouraged their ICF/MRs to upgrade to meet federal standards. As they did so, the number of residents who thereby qualified for Medicaid coverage more than doubled—despite a widespread exodus from these facilities over this period.

Because press and congressional inquiries uncovered abuse and neglect in some of the big state institutions in the early 1960s and because experience increasingly showed that many mentally retarded

people could lead semi-independent lives if they had support services in the community, a declining share of the mentally retarded population remained institutionalized. However, those that remained tended to be the most profoundly retarded, those with multiple disabilities, or those who were "medically fragile." In addition, rising expectations about what mentally retarded children could accomplish with special training and support spilled over into demands for better services within the ICF/MRs as well.

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Accordingly, the average Medicaid payment per ICF/MR resident rose almost 16 percent a year over this period to reach \$45,000 in 1989. These big increases in payments for the institutionalized mentally retarded led to well-above-average increases in payments per disabled recipient.

More recent legislative and administrative changes have also expanded the disabled caseload. For example, in 1986 and 1987, the U.S. Congress provided Medicaid coverage for individuals with no permanent address and then required states to make an effort to ensure that homeless Medicaid beneficiaries received Medicaid identity cards. Partly as a result, the number of disabled Medicaid recipients rose 19 percent between 1985 and 1989. Most observers estimate that a majority of the homeless are mentally ill; yet only 12 percent of the mentally ill who would be eligible for SSI, and thus Medicaid, actually receive benefits. In other words, the scope for expanding coverage appears significant.

Finally, the AIDS epidemic has contributed to the increased share of Medicaid expenditures absorbed by the disabled. Between 1981, when the first U.S. AIDS case was recorded, and 1989, payments for AIDS patients rose to an estimated 2 percent of the Medicaid total. Medical expenses for an AIDS patient typically range from \$25,000 to \$35,000; however, Medicaid frequently does not pay for the entire cost of the illness because many AIDS patients pay for part of their medical expenses privately—through insurance or out-of-pocket—until they meet medically needy eligibility standards.

Data for 1985 to 1989 undoubtedly provide better clues about future trends than do figures for the last 15 years. These more recent data suggest, first, that the effect of the 1972 legislation permitting Medicaid payments to residents of ICF/MRs has run its course. The number of recipients in ICF/MRs barely rose between 1985 and 1989, and payments per recipient climbed at a greatly reduced (but still above-average) pace.

In addition, the absolute decline in the number of elderly Medicaid recipients that was evident between 1975 and 1985 has continued. Seemingly, thus, the fall in poverty due to the Social Security program is still outweighing demographic trends. Whether the elderly will ever emerge as the driving force behind growing Medicaid expenditures remains to be seen. Washington may respond to growing demands for increased Medicaid coverage for community services for the mentally retarded and the mentally ill, for

example, by mandating program expansions that will again swamp the impact of the aging population. In addition, pessimistic scenarios suggest that AIDS patients may account for 13 percent of Medicaid payments by the early 1990s (Congressional Research Service, 1988, p. 489).

These conclusions do not eliminate the need to develop a national consensus on how to pay for long-term care, however. On the contrary, they underscore that need. State governments are already having a hard time financing their existing Medicaid obligations—even before the impact of ongoing demographic change kicks in. The success of Social Security and private pensions in maintaining the income of retired citizens may just have postponed the inevitable.

Finding an alternative solution to the long-term care problem would lift a big burden from the states. (See BOX for a brief discussion of the social insurance

A Social Insurance Program for Long-Term Care

One frequently mentioned approach to paying for long-term care involves establishing a broad-based social insurance program (like Social Security and Medicare) to which most citizens contribute and from which they can draw, as a matter of right, in case of need. Many analysts have written on the need for such a social insurance program, and the reader is referred to a selection of their works listed in the bibliography. These writers have pointed out that the problem of providing long-term care is frequently a family problem spanning the generations, not an aged problem pitting young against old. They have emphasized how much of the current weight is carried by unpaid family members. This "solution" may be satisfactory from a state or federal budgetary perspective, but it exacts a price in terms of the health and productivity of current workers, particularly working women.

Solving the long-term care problem is beyond the scope of this article, especially since little consensus concerning the solution's basic outline has yet developed. Although recent administrations have looked to private insurance markets to provide coverage for the risk of long-term care, many observers fear these markets may not prove

adequate to the entire task. While a role for private insurance surely exists, the likelihood of underinsurance and risk aversion, discussed above, suggests that government intervention may be required. Because young workers underestimate their need for long-term care and because adverse selection among older workers becomes a problem, private policies are, and are likely to remain, limited and expensive.

One possible approach would extend Medicare to cover a basic package of long-term care with private Medigap policies covering deductibles, co-payments and frills. Such a program could be funded by a payroll tax or from general revenues. The basic package could include elder day care, home care, and respite care—not with the expectation of saving money but to avoid a bias toward institutionalization. Indeed, the logistics of delivery and quality control appear to make home care programs more expensive than nursing home care. Moreover, since the demand for home care might soar if third-party payment were available, a long-term care program should probably require rigorous case management or significant co-payments for use of home care benefits (Ball and Bethel 1989).⁷

approach to long-term care.) Depending on the groups and services covered, removing long-term care from Medicaid would transfer 30 to 45 percent of the states' Medicaid costs. A solution covering current services for the elderly (including limited home health care) would remove one-third of the states' expenditures. A solution that included the mentally retarded would eliminate 45 percent of the states' outlays. In Massachusetts, a social insurance approach to long-term care would remove more than half the state's Medicaid burden. Of course, shifting burdens does *not* eliminate costs. In the end, individuals will pay for long-term care—through higher taxes if the government pays directly, through lower wages and dividends and higher prices if the government subsidizes employment-related fringe benefits, or (very largely) in out-of-pocket expenditures and unpaid labor if the current arrangement goes unchanged. The costs are there. One way or another society will pay.

Rising Health Care Costs Drive Medicaid Spending

Even if the long-term-care half of the Medicaid program could be spun off to a social insurance program or to private insurance markets—and neither development is likely over the near term—the states would still be left facing mini budget-busters whose costs are rising more than twice as fast as state revenues. Indeed, soaring medical costs have been *the* major force driving Medicaid expenditures over the last 15 years. Total Medicaid payments more than quadrupled over this period. The total number of Medicaid recipients grew less than 7 percent. A shift in the composition of the recipient pool—from AFDC child to AFDC adult and from aged to disabled, for instance—contributed very little. Thus, more than 90 percent of the growth in Medicaid expenditures reflects the rising cost of U.S. medical care.

Personal health care expenditures grew at an 11 percent annual average pace from 1965 to 1988. Over this period the CPI and the CPI/medical care rose 6 and 8 percent a year respectively. Clearly, thus, rising prices provide only part of the explanation for rising health care expenditures. Indeed, according to a Health Care Financing Administration breakdown, the increase in expenditures has three components: population growth accounted for 10 percent, price increases for 60 percent, and changes in "intensity" for 30 percent of the growth in personal health care expenditures over this period. "Intensity" refers to the number or kind of services used; hospital costs

provide an example of its impact. Hospital costs per inpatient day rose 13 percent a year between 1980 and 1986, in part because the number of diagnostic tests, like ultrasound and CAT scans, rose more than 75 percent on a per capita basis over this period. (Unfortunately, the CPI/medical care is itself a highly flawed measure of "price" change. Problems with the changing quality and relevance of the items in the market basket are more acute for the CPI/medical care than for most price indexes. See Newhouse 1989.)

Although state governments have been very inventive in trying to devise ways to curb rising medical costs, they have limited ability to stem this tide either together or, more particularly, on their own. State and local governments account for only 10 percent of personal health care expenditures (excluding insurance premiums and administrative expenses). Accordingly, individual state governments have limited market power. To make matters worse, if states try to set Medicaid reimbursement schedules below the going "market" rates, Medicaid recipients will have problems gaining access to care, as the whole history of the program demonstrates.

The forces that have been and will be driving Medicaid expenditures nationally also affect Massachusetts. In particular, the state cannot isolate itself from national trends in health care costs. In addition, repeated federal initiatives to expand mandatory Medicaid coverage and changing concepts of appro-

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prate care for the mentally disabled have swelled Medicaid spending in Massachusetts as elsewhere. Although the share of the population aged 65 and over is slightly higher in Massachusetts than in the nation (even more so for the population aged 75 and over), U.S. and Massachusetts demographic trends are broadly similar. Nevertheless, by most reasonable measures, Massachusetts' Medicaid expenditures appear high. What makes Massachusetts different?

IV. Medicaid in Massachusetts

Massachusetts' Medicaid program is widely known as being exceptionally comprehensive compared to that in other states. The third wealthiest state in the nation in terms of per capita income, its policymakers have until recently thought that it could afford such a program. The Commonwealth sets its income limits for AFDC and (state-supplemented) SSI recipients at above-average levels. Massachusetts also covers most optional groups permitted by the federal legislation. Accordingly, as Table 2 shows, the Massachusetts Medicaid program covers an above-average share of the state's impoverished population.

Because the federal requirements are expanding

to cover some groups that Massachusetts already includes, the distinctions between the Commonwealth and average practice are gradually diminishing, and the impact of broadening federal mandates may well be less in Massachusetts than in some other states. Nevertheless, even prior to the October 1990 federal budget package, new federal requirements were expected to cost Massachusetts \$150 million or one-fourth of the increase in Medicaid expenditures during FY1991. Requirements in the new budget package are likely to add an additional \$150 million over a five-year period.

Like 35 other states, Massachusetts offers a medically needy program. However, Massachusetts is like only 28 other states in offering a medically needy

Table 2
Medicaid Recipients as a Share of the Total Population and as a Share of the Poverty Population, FY1989
Percent

States	All Medicaid Recipients as a Share of Total Population	Share of Population Living in Poverty ^a	Categorically Needy as a Share of Poverty Population ^b	All Medicaid Recipients as a Share of Poverty Population ^b
Massachusetts	9.8	8.8	81.1	111.9
Other New England States				
Connecticut	7.0	7.2	73.0	97.8
Maine	10.0	11.1	83.2	90.5
New Hampshire	3.3	5.6	46.5	58.1
Rhode Island	10.3	11.2	81.3	92.2
Vermont	9.4	10.2	84.6	92.3
High Technology States				
Arizona ^c	c	13.4	c	c
California	11.4	13.4	65.2	67.8
Maryland	6.8	8.5	62.1	80.5
North Carolina	7.4	14.0	35.2	53.0
Texas	7.0	16.2	37.2	43.0
Washington ^d	9.0	11.7	77.8	76.7
Industrial States				
Illinois	8.9	15.0	47.6	59.6
New Jersey	6.9	9.5	67.8	72.5
New York	12.6	15.2	60.5	82.6
Michigan	12.0	14.4	81.5	83.7
Pennsylvania	9.1	12.4	71.4	73.7
United States Average	9.5	14.0	56.4	67.8

^aEstimated for 1985-87.

^bAssuming that the poor account for the same share of the total population as in 1985-87.

^cArizona does not participate in Medicaid; it has an alternative demonstration program.

^dReported Medicaid data not consistent.

Note: Poverty population equals all individuals with incomes below the federal poverty level.

Source: U.S. Health Care Financing Administration, State Medicaid Data Tables, for FY 1989, 1989 data, June 21, 1990. Based on data from HCFA form 2082 for 1989. University of Wisconsin-Madison, Institute for Research on Poverty, Focus, vol. 11, no. 3 (Fall), 1988. U.S. Bureau of the Census.

program that includes nursing home care for the aged. Twenty-one states provide no such coverage, either because they have no medically needy program, or their medically needy program does not include the aged, or their medically needy program for the aged does not provide nursing home services. The distinction between states with and without medically needy programs for the aged is blurred, however. Federal law permits states to establish a special income level to be used only in determining Medicaid eligibility for individuals living in nursing homes or in need of (currently very limited) home and community-based services. This special income level is capped at 300 percent of the basic SSI payment level for an individual ($3 \times \$386$ or \$1,158 per month in 1990); thus it is known as the "300-percent rule." All of the states that have no medically needy program use this special option to provide Medicaid coverage for nursing home residents. Over half of this group of states use the maximum income level permitted. This income level is sufficiently high to cover almost half of elderly men and perhaps 80 percent of elderly women (Neuschler 1988). On the other hand, some states with medically needy programs limit the number of licensed nursing home beds as a device for controlling Medicaid payments.

Until recently, Massachusetts was exceptional in offering all optional services except one (respiratory care). Until recently, it also required no co-payments on services like prescription drugs, as many states do, and it set few limits on the amounts of services permitted (such as prescriptions per month). During the last two years, however, the Commonwealth has curbed its generosity. In 1989 the Budget Control and Reform Act instituted the use of co-payments for prescription and over-the-counter drugs and for inappropriate use of emergency rooms. The FY1991 budget eliminates coverage of several optional services, including some adult dental care, and services provided by podiatrists, chiropractors, Christian Science nurses and sanatoria, and social work interns. All along, the state has been more active than most in requiring second surgical opinions and pre-admission screening for Medicaid recipients entering nursing homes. It has recently broadened these screening requirements even further.

From the perspective of the program's beneficiaries and their advocates this relative generosity is most welcome. Indeed, in 1987 the Public Citizen Health Research Group ranked the Massachusetts Medicaid program as the fourth best in the country (behind that of Minnesota, Wisconsin and New

York). In doing so, however, the Group emphasized that this ranking reflected the inadequacy of most states' Medicaid programs rather than the excellence of Massachusetts' offerings. More objectively, perhaps, the infant mortality rate provides another indicator of a state's public health status, and one that may be related to its Medicaid program. According to this measure,⁸ Massachusetts has the second lowest infant mortality rate (after North Dakota) in the United States. At 8.5 infant deaths per 1,000 live births in 1986, the Massachusetts rate was equivalent to that in Spain and West Germany but worse than that of such countries as Switzerland, Hong Kong and France. By contrast, the U.S. average (at 10.4)

Table 3
Medicaid Payments per Capita and per \$1,000 of Personal Income, FY1989
Dollars

States	Total Medicaid Payments (millions)	Payments Per Capita	Payments per \$1,000 of Personal Income
Massachusetts	\$ 2,393	\$404.71	\$18.82
Other New England States			
Connecticut	1,027	317.02	13.30
Maine	371	303.98	19.41
New Hampshire	183	165.35	8.44
Rhode Island	374	375.18	21.50
Vermont	133	234.50	14.83
High Technology States			
Arizona ^a	a	a	a
California	5,498	189.18	9.94
Maryland	936	199.47	9.89
North Carolina	1,165	177.23	12.04
Texas ^b	2,226	130.99	8.76
Washington	962	202.13	12.02
Industrial States			
Illinois	2,103	180.42	9.94
New Jersey ^c	1,920	248.21	10.83
New York	10,191	567.75	28.61
Michigan	1,954	210.74	12.33
Pennsylvania	2,458	204.16	12.16
United States	54,500	220.08	12.95

^aArizona does not participate in Medicaid; it has an alternative demonstration program.

^bState medically needy program not available to aged individuals.

^cState medically needy program for aged does not cover nursing facilities.

Source: U.S. Health Care Financing Administration, State Medicaid Data Tables for FY1989, June 21, 1990. Based on data from HCFA form 2082 for 1989; U.S. Bureau of the Census; DRI McGraw/Hill Inc.

was worse than that of 21 countries, including East Germany, Italy and Northern Ireland. The same factors that tend to reduce infant mortality rates also tend to reduce vision and hearing loss and mental retardation, conditions that currently afflict 100,000 U.S. newborns each year (*The New York Times*, August 6, 1990). Accordingly, some part of the state's Medicaid spending may be a good long-term investment for Massachusetts' taxpayers. In the short run, however, the Massachusetts Medicaid program looks expensive.

Table 3 displays Medicaid payments per capita and per \$1,000 of personal income for Massachusetts and the 16 comparison states in FY1989. As the table shows, Massachusetts' Medicaid payments per capita were well above the national average. Among the comparison states, only New York's per capita Medicaid payments were higher. Even on the basis of Medicaid payments per \$1,000 of personal income, Massachusetts ranked higher than all comparison states but New York, Rhode Island and Maine.

Why Are Massachusetts Medicaid Payments per Capita So High?

Decomposing payments per capita into two parts, 1) recipients per capita and 2) payments per recipient, helps to answer this question. To start with

the first relationship, the share of Medicaid recipients in Massachusetts' population is just slightly above the national average as Table 2 showed. But why, since Massachusetts is a wealthy state with relatively few low-income residents, is this ratio not below average?

Table 4 shows the results of an experiment in which Massachusetts was assumed to have national demographic characteristics and eligibility criteria. The experiment involved changing each variable, one at a time, from the national average to the Massachusetts value and then comparing the resulting hypothetical number of Massachusetts' Medicaid recipients per capita to the U.S. average. If the variable in question makes little contribution to explaining why Massachusetts has more Medicaid recipients per capita than the nation, the ratio remains close to 1.0.

As the results show, the biggest impact comes from Massachusetts' eligibility criteria for the categorically needy. If Massachusetts had national average demographics but its own eligibility requirements for families with dependent children, the disabled and the aged, then the number of Massachusetts' Medicaid recipients per capita would be 36 percent above the national average.

The next biggest impact comes from reducing the share of the population living below the poverty level from the national average to Massachusetts' relatively low value. If Massachusetts had its own low share of

Table 4
 "Explaining" the Ratio of Massachusetts to U.S. Medicaid Recipients per Capita, FY1989

Actual Ratio Mass./U.S.	Hypothetical Ratio, if Mass. = U.S. except for:				
	Categorically Needy/Pov. Pop.	Poverty Pop./ Total Pop.	Medically Needy Aged/ Aged Pop.	Aged Pop./ Total Pop.	Other Med. Needy/ Total Pop.
1.03	1.36	.68	1.06	1.00	1.07

Note: Medicaid recipients per capita was calculated according to the following equation:

$$\frac{\text{Medicaid Recipients}}{\text{Total Population}} = \frac{\text{Cat. Needy}}{\text{Pov. Pop.}} \times \frac{\text{Pov. Pop.}}{\text{Tot. Pop.}} + \frac{\text{Med. Needy Aged}}{\text{Aged Pop.}} \times \frac{\text{Aged Pop.}}{\text{Tot. Pop.}} + \frac{\text{Other Med. Needy}}{\text{Total Pop.}}$$

$$= \text{RC}$$

The actual ratio of Massachusetts to U.S. Medicaid recipients per capita equals RC_{MA}/RC_{US} . The hypothetical ratios were calculated RC_{US}/RC_{US} except that one variable at a time took on the Massachusetts rather than the U.S. value.

Source: U.S. Bureau of the Census, *Statistical Abstract of the United States, 1990*; U.S. Health Care Financing Administration, "A Statistical Report on Medicaid: State Medicaid Programs" (HCFA 2082), June 1990; University of Wisconsin—Madison, Institute for Research on Poverty, *Focus*, vol. 11 (Fall 1988).

indigent people but the national average eligibility criteria, its ratio of Medicaid recipients to total population would be only 68 percent of the national average. In other words, Massachusetts' wealth is playing a crucial role in keeping the number of Medicaid recipients in check. This result suggests that a severe or prolonged downturn in the Massachusetts economy could have a big impact in raising the number of Medicaid recipients per capita. (It would have a smaller effect on payments per capita, however, since the group most sensitive to recession, the AFDC-related, is relatively inexpensive.)

This experiment also suggests that Massachusetts' relatively aged population does not explain the difference between the U.S. and the state ratios of Medicaid recipients per capita. However, the state's eligibility rules for the medically needy do play a significant role in increasing the Medicaid caseload. For example, Massachusetts is one of 31 states that place no or inconsequential limits on the ability of a permanently institutionalized Medicaid recipient with no spouse or dependent children to retain a home; 18 states have substantial restrictions on home ownership by permanently institutionalized beneficiaries. (This issue will be discussed in more detail in the section on asset recovery.) Moreover, because medically needy recipients tend to be considerably more expensive than categorically needy recipients, a slightly above-average share of medically needy recipients translates into substantially higher payments per capita. Up to now, in other words, Massachusetts' policymakers have chosen to provide medical care to needy people in expensive categories that some other states have deliberately opted to exclude.⁹

The results of this experiment suggest why many budget analysts advocate tightening Massachusetts' eligibility requirements for the medically needy or across the board to bring them in line with the national average. Massachusetts' policymakers could, for instance, choose to reduce the standard of need used to determine eligibility for AFDC and, thus, for Medicaid to the U.S. median. (In 1989 the Massachusetts standard of need for a one-parent family of three was 65 percent of the federal poverty level; the U.S. median was 44 percent.) Making such a change would reduce state Medicaid payments for AFDC adults—at 1989 benefit levels—by a roughly estimated \$50 million or 2 percent of total Medicaid payments.¹⁰ Bringing the state's eligibility criteria for its medically needy program for the aged to national average standards might save an approximate \$500 million or 20 percent of total Medicaid payments.

Table 5
Medicaid Payments per Recipient, FY1989

States	Payments per Recipient
Massachusetts	\$4,108
Other New England States	
Connecticut	4,501
Maine	3,026
New Hampshire	5,078
Rhode Island	3,633
Vermont	2,489
High Technology States	
Arizona ^a	a
California	1,653
Maryland	2,914
North Carolina	2,390
Texas	1,878
Washington	2,252
Industrial States	
Illinois	2,016
New Jersey	3,602
New York	4,522
Michigan	1,749
Pennsylvania	2,232
United States Average	2,318

^aArizona does not participate in Medicaid; it has an alternative demonstration program.

Source: U.S. Health Care Financing Administration, State Medicaid Data Tables for FY1989, June 21, 1990. Based on data from HCFA form 2082 for 1989.

One drawback to this approach, however, is that states often find that tightening eligibility requirements during a cyclical downturn is counterproductive because they lose the federal matching grant (recorded on the revenue side of the budget) but still wind up paying for much of the medical care for the excluded individuals through state-financed programs.

Payments per Recipient

Table 5 presents the second crucial ratio—payments per Medicaid recipient—for Massachusetts, the comparison states and the United States. Massachusetts' payments per recipient appear very high, 77 percent above the national average. Only Connecticut, New Hampshire and New York have higher ratios. Nevertheless, it is important to look at the composition of the recipient population because medical care for an AFDC child costs much less than

medical care for an elderly or disabled nursing home resident.

As one might expect, payments per recipient rise by category from AFDC child to AFDC adult, to aged individual, to the blind and disabled, as Table 6 shows. In addition, payments to a medically needy recipient generally exceed those to a categorically needy person in each category. Accordingly, judging how out of line Massachusetts payments per recipient really are requires calculating what the Massachusetts average payment would have been if the state had the same recipient mix as the nation but paid state costs. Such an experiment indicates that 70 percent of the difference between Massachusetts and

Table 6
Medicaid Payments per Recipient by Category, FY1989

	United States	Massachusetts	MA/US
Categorically Needy			
Aged	\$ 4,613	\$ 3,751	.8
Blind	3,859	7,160	1.9
Disabled	5,183	6,980	1.3
AFDC Child	641	817	1.3
AFDC Adult	1,211	1,639	1.4
Other	1,301	0	
Medically Needy			
Aged	10,328	14,982	1.5
Blind	16,247	11,804	.7
Disabled	12,002	20,314	1.7
AFDC Child	909	737	.8
AFDC Adult	1,169	1,617	1.4
Other	714	1,821	2.5
Standardized Recipient			
	2,318	2,851	1.2

Source: U.S. Health Care Financing Administration, State Medicaid Data Tables for FY1989, June 21, 1990. Based on data from HCFA form 2082.

U.S. payments per recipient reflects composition. In other words, the state has a very expensive mix of Medicaid beneficiaries, with above-average shares of the aged, the disabled and the medically needy. After standardizing the recipient pool, Massachusetts payments per beneficiary were 23 percent above the national average in 1989. Not only were these standardized payments high; they were also rising relatively fast. In 1975 Massachusetts cost per standardized recipient was only 19 percent above the national average.

This remaining difference in costs per standardized recipient reflects both price and intensity of use. Differences in intensity include, for example, the fact that the Massachusetts' Medicaid program covers services that other states do not. In other words, although this standardizing exercise avoids comparing apples with oranges, it still compares Granny Smiths with Macouns.

More generally, this differential accords with recently published data indicating that total health care spending per capita in Massachusetts is currently 25 percent above the national average—and the highest in the nation (Lewin/ICF data published in Families USA Foundation 1990). Hospital costs per admission (adjusted for outpatients) at all acute-care hospitals and at specialized teaching hospitals were also 24 to 27 percent above the national average in Massachusetts, according to a recent study (Boston University School of Public Health 1990).¹¹ The authors of the study attribute Massachusetts' relatively high health care costs to its high ratio of patient-care physicians per capita (37 percent above the U.S. average and, again, the highest in the country) and to the "procedure-intensive medical style" practiced in this state. Clearly, if the cost of Massachusetts health care is very high, its Medicaid program will be affected. Medicaid costs cannot be isolated from state health care costs without creating access problems for Medicaid beneficiaries.

V. Options for Controlling Medicaid Costs

How can policymakers reduce the cost of the Medicaid program to the state? They can shift costs from the public to the private sector, and they can make the existing program more efficient. From the perspective of society as a whole, shifting costs does not eliminate them; reducing unnecessary care does. Unfortunately, however, the state's current fiscal problems may force policymakers to take a narrow view. Moreover, the suggested dichotomy is not complete, since shifting costs may eliminate some unneeded care, and the mechanism for reducing unneeded care may involve some cost shifts.

The following section will discuss the most frequently mentioned options for cutting state Medicaid spending according to this scheme. It will start with those choices that rely on shifting costs by: 1) eliminating optional programs and services; and 2) tightening eligibility requirements. The section will then explore approaches to increasing efficiency/reducing

waste by: 1) asking the consumer to share the marginal cost; 2) reducing the return to the provider; and 3) increased use of managed care, a mild form of rationing.

Shifting Costs to the Private Sector

As the third wealthiest state in the nation in terms of per capita personal income, Massachusetts has developed an unusually comprehensive Medicaid program. Accordingly, eliminating programs and services permitted but not required by the federal government represents one policy option. Indeed, the "sunset" provisions in the FY1991 Massachusetts budget legislate this choice on a contingent basis. The act specifies that if Medicaid expenditures amount to more than 18.24 percent of total state spending (very close to its current level) according to certification by the comptroller within 30 days of the end of the fiscal

year, "any benefits available to recipients of the Medicaid program which are not mandated under federal law shall be terminated forthwith." Given the pressures driving Medicaid expenditures nationwide, the chances of the Massachusetts Medicaid program exceeding the 18.24 percent limit are substantial.

Eliminating optional programs and services. HCFA data make it possible to estimate the budgetary impact of most (but not all) of the state's optional programs and services. Column 1 of Table 7 lists the maximum short-term spending cuts that Massachusetts state government could ostensibly achieve by eliminating each of these programs and services. Because the medically needy may use optional services, the savings listed under options I and IIA cannot be added together; they are alternatives. Option IIB provides a rough estimate of the public sector savings that might be recorded by ending both the medically needy program and other optional services.

Table 7
Estimated Impact of Eliminating Massachusetts' Optional Medicaid Programs and Services, FY1989

Benefits Eliminated	Optional Medicaid Payments Eliminated (\$ millions) (1)	Savings Net Federal Matching Funds Lost (\$ millions) (2)	Gross Savings/Total Medicaid Payments (Percent) (3)	Net Savings/Total Spending of State Resources (Percent) (4)
I. Medically Needy Program Only				
Total	1,286.0	643.0	53.7	6.6
Aged	841.8	420.9	35.2	4.3
Disabled and Blind	314.9	157.4	13.1	1.6
AFDC—Total ^a	55.3	27.6	2.3	.3
Other	74.0	37.0	3.1	.4
II A. Optional Services Only				
Total	1,040.7	520.4	43.5	5.4
ICF/MRs	295.9	148.0	12.4	1.5
ICF/Other	427.2	213.6	17.9	2.2
Dental Services ^b	24.4	12.2	1.0	.1
Other Practitioners ^b	20.3	10.2	.8	.1
Clinic Services	79.4	39.7	3.3	.4
Prescribed Drugs ^b	115.7	57.8	4.8	.6
Other	77.8	38.9	3.2	.4
II B. Optional Services and Medically Needy Program				
Total (estimated)	1,606.7	803.4	67.1	8.3
Optional Services for Categorically Needy (estimated)	320.7	160.4	13.4	1.7

^aIf a state chooses to have a medically needy program, federal law requires that the program cover pregnant women and children.

^bRecent state legislation has placed some limits on Medicaid coverage of these services.

Source: Author's estimates based on data from HCFA form 2082.

As column 3 shows, a decision to terminate all optional benefits would reduce Massachusetts' Medicaid expenditures by a dramatic two-thirds—on a gross basis. Column 2 records these savings net the resulting loss of federal matching funds (with the federal share assumed to be 50 percent across the board). Column 4 shows these net public sector savings as a share of total state spending of state resources (total spending less revenue from the federal government).

As Table 7 indicates, the bulk of these public sector savings would derive from eliminating the medically needy program and services provided by intermediate care facilities. Accordingly, the cost of these public sector savings would fall largely on the mentally retarded and on elderly individuals impoverished by uninsured medical and long-term care expenses. These people (and their families) would face all the costs shown in column 1—whether in the form of out-of-pocket expenses or medical care forgone—while the state would save the amount shown in column 2.

But what would be the impact of this cutback on other income support and health care programs funded by the state? While some institutionalized individuals could undoubtedly live with their families, what would be the cost in terms of family members' time, health, income, and thus, tax revenue? The average resident of a long-term care facility in Massachusetts is a woman in her eighties with three or four chronic illnesses. One-third are non-ambulatory. Nationally, roughly one-half of all long-term care residents have Alzheimer's disease or a related disorder. And many of these institutionalized individuals have no immediate family. If a needy individual is eliminated from Medicaid eligibility, where does the cost of his care resurface?

A significant portion would undoubtedly reappear within the Medicaid program itself, since it seems unlikely that Massachusetts would choose to be the only state in the nation (among those without a medically needy program) not using the "300-percent rule." All states without a medically needy program use this federal provision to cover nursing home care for near-poor and middle-income citizens whose assets have been depleted by institutionalization. Where the cost of acute care eliminated from Medicaid coverage would reemerge is less clear. Unfortunately, the state does not have the data or the personnel to trace the connections between various federal and state-funded income support and health care programs; thus, some of these questions are

simply unanswerable in the short term. It does seem clear, however, that much of any increase in uncompensated care would be covered by higher charges to private patients and, eventually, by higher insurance premiums.

If Massachusetts policymakers decide that the current budget crisis requires eliminating the medically needy program in this state, a grandfather clause covering existing beneficiaries would greatly reduce the disruption—but also the short-term cost savings. As an alternative, legislators might choose to limit long-term care coverage to the most severely disabled medically needy, those unable to perform three or four activities of daily living (such as bathing or eating), for instance.

Ending the state's medically needy program would be a most unusual development. Only a handful of low-income states have ever terminated a medically needy program, even temporarily, and never has a state ended a medically needy program covering long-term care for the elderly.

A much more common method of shifting the costs of specific benefits away from the Medicaid program involves setting limits on the use of covered services (for example, on the number of doctor's visits permitted per year). The problem with limits set by administrative fiat is that they are not very flexible. Accordingly, they may not be cost effective. For example, in the early 1980s New Hampshire had set a limit on Medicaid-covered prescriptions at three per month. As a result, according to a recent study, admissions to New Hampshire nursing homes doubled; hospitalization rates also rose, but to a lesser extent. Doctors admitted patients to these institutions as a way to obtain required drugs, and because some individuals' health actually deteriorated (Winslow 1990). By contrast, the Massachusetts legislature's recent decision to eliminate several optional services from program coverage incorporates some flexibility; by exception, a doctor may certify that the services are medically necessary, as might be the case, for instance, with podiatric services for diabetics.

Oregon's widely discussed effort to develop a hierarchy of Medicaid-covered services based on cost/benefit criteria represents still another experiment in setting administrative limits. The state's first attempt at ranking services resulted in such a bizarre list that it was sent back to the drawing board. (For example, since duration of benefit was given a 50 percent weight, orthodontics preceded treatment for meningitis.) The major problem with setting limits by fiat will remain, however, regardless of how "reason-

able" the final list may be. Although the classifications of service or diagnosis may be very detailed, medical cost/benefit will always depend on individual patient circumstances and require individual judgment. Accordingly, Oregon's efforts to reduce waste, should they be implemented, are likely to result in a good deal of cost shifting. (Incidentally, Medicaid services for the elderly will be exempt from this cost/benefit analysis in Oregon's plan.)

Tightening eligibility criteria. Tightening eligibility criteria to bring them close to national standards represents an alternative way of shifting public sector costs to the private sector. (Again, the estimated savings from tightening eligibility criteria and the estimated savings from eliminating optional services are *not* additive; the policy choices overlap to an unknown extent.) As already discussed, at current cost and benefit levels, tightening eligibility requirements for the medically needy aged would cut Massachusetts' Medicaid spending by 20 percent (gross); net the loss of federal matching funds, such changes would save less than 2 percent of the state's own resources. One reasonable way to tighten eligibility criteria for the medically needy aged would be to limit the time that the home of a permanently institutionalized (as certified by a doctor) Medicaid recipient with no spouse, dependent child or, in limited cases, a sibling living in that home could be considered an exempt asset. This policy change, akin to a Massachusetts Taxpayers Foundation proposal, could result in significant public sector savings. It is discussed more fully in the section on asset recovery.

A less promising route to cutting state Medicaid expenditures would involve reducing the share of the state's impoverished population covered by the categorically needy program to the national average level. Such a step might save 12 percent of Medicaid expenditures on a gross basis and 1 percent of state resources on a net basis.¹² Reducing access to the categorically needy Medicaid program requires tightening eligibility for AFDC and SSI as well.

But, again, would some poor people denied eligibility to Medicaid turn to other state programs? Although many other variables are involved, in states like Massachusetts and New York, where Medicaid pays a well-above-average share of all personal health care costs, "other (non-Medicare) public" funds pay a below-average share; in states like Texas and North Carolina, by contrast, Medicaid pays a below-average and "other public" funds pay an above-average fraction of all health care spending (Lewin/ICF estimates in Families USA Foundation 1990).

Improving Program Efficiency

Whether or not Massachusetts' policymakers decide to eliminate optional benefits, they will undoubtedly want to pursue efforts to improve the efficiency of the Medicaid program. Without such efforts, even a pared-down program will most likely continue to grow considerably faster than state revenue. Unfortunately, the savings that could result from promoting best-practice delivery and reimbursement systems will be comparatively modest, but they will cumulate. By contrast, when benefits are cut, the savings are immediately apparent. It is the costs that emerge over the long term.

The issue of improving efficiency introduces a whole set of administrative decisions and procedures—many mundane but nevertheless reflective of a state's philosophical approach to Medicaid. These issues include the need for co-payments, the value of alternative delivery mechanisms (like health maintenance organizations) and managed care, volume purchasing and estate recovery programs. Just as Massachusetts has set its eligibility criteria so that Medicaid covers an above-average share of the impoverished population, so the state has also been exceptionally open-handed in several other administrative areas. Although the Massachusetts Medicaid

Unfortunately, the savings that could result from promoting best-practice delivery and reimbursement systems will be comparatively modest, but they will cumulate.

program has a reputation for being somewhat innovative, its innovations have generally been geared more toward broadening access than to controlling costs.

As mentioned earlier, options for improving efficiency, given current technology and health needs, fall into three categories: 1) increasing the marginal cost to recipients; 2) putting the provider at risk of paying the marginal cost of care; and 3) rationing

through increased use of managed care. All across the country state officials grappling with an ever-expanding Medicaid program are combining these methods in a great variety of ways. Dozens of experiments are underway in the 50 state laboratories. A good many large corporations, stung by rising health insurance costs, are also becoming involved. They are experimenting with increased co-payments and deductibles, for example, encouraging the use of preferred provider organizations (PPOs), even setting up their own health care delivery systems. All segments of society are groping toward ways to control medical costs.

So far, very little consensus exists concerning what works and what does not, especially since many current efforts merely shift costs from one group to another. Today's promising answer often turns out to be tomorrow's disappointment. For example, not too long ago HMOs were being hailed as a preferred delivery mechanism. Later it became apparent that their relatively low costs partially reflected favorable selection; younger, healthier people were choosing HMOs while older, riskier individuals were sticking with traditional indemnity insurance. Yet subsequent demonstration programs, wherein individuals were assigned at random to an HMO or a traditional health insurance program, suggested that HMOs can deliver some significant short-term savings in an experimental setting. Whether HMOs reduce the cost of providing health care to Medicaid recipients over the long term has yet to be demonstrated. Moreover, while HMOs appear to reduce unneeded care and improve efficiency, they cannot slow the underlying pace of medical care inflation based on technical change or demographics.

Despite this rampant agnosticism, a few observations emerge from all the conflicting evidence and advice. In the following discussion, the various administrative procedures that states can use to affect costs will be categorized according to whether they involve raising the marginal cost to the consumer, raising the marginal cost to the provider, or rationing through managed care.

Asking the Consumer to Share the Marginal Cost

As already observed, Medicaid officials face an inherent conflict between providing access to medical care to those who cannot afford it and controlling costs. This conflict is highlighted by the use of co-payments to limit Medicaid recipients' use of Medicaid services. While increased use of co-payments to

discourage waste by health care consumers generally makes very good sense, requiring co-payments of welfare recipients might deter some necessary acute/preventive care and not prove cost-effective in the long run. The budgetary impact of the "nominal" co-payments permitted by federal law is also likely to be limited. For instance, if each of the 411,000 Massachusetts Medicaid recipients who used prescription drugs in 1989 paid a 50 cent co-payment for one prescription drug per month (as is required by a provision in the FY1991 budget later vetoed by the Governor), the co-payments would make a 0.1 percent dent in Massachusetts' Medicaid payments. Moreover, if one-fifth of all purchases of prescription drugs were deterred by such co-payments, the state's Medicaid expenditures would fall by 1 percent—in the immediate term. If essential medications were forgone, however, co-payments could raise total Medicaid costs over the longer term. A more promising alternative to co-payments might be increased use of managed care, as will be discussed below.

Exceptions to this criticism of co-payments for Medicaid recipients might include their imposition in cases of inappropriate use of emergency wards, and for elective surgery and home/community care—although case management might again be preferable. One problem with imposing co-payments for "inappropriate" use of hospital emergency wards is that in many poor communities alternative facilities simply do not exist.

Family contributions. The Massachusetts Budget Control and Reform Act of 1989 takes another initiative that results in the consumer (or the consumer's family) sharing the marginal cost of care. That legislation requires the spouse or children of an elderly Medicaid recipient living in a long-term care facility to contribute 2 percent of the monthly Medicaid payment for that facility to a long-term eldercare trust fund. Kin with incomes less than three times the federal poverty level would be exempted. (House 1 contained provision for a 10 percent family contribution on a sliding scale; it was not included in the budget as enacted.) Assuming that all 1989 Medicaid payments to nursing facilities other than those for the mentally retarded qualified for these co-payments, the resulting contribution would have amounted to a maximum 0.7 percent of Massachusetts Medicaid payments in 1989. Although the legislation is in accord with a widely valued principle of family responsibility, only one other state, Idaho, has ever tried such an approach; it found its program extremely difficult to administer and abandoned it. The

Massachusetts Taxpayers Foundation describes this legislation as unenforceable as written.

Asset recovery. An alternative source of "co-payments" derives from state efforts to recover assets from institutionalized beneficiaries or from the estates of elderly deceased Medicaid recipients. The asset of interest is usually the recipient's house. Federal law *requires* states to exclude a Medicaid applicant's primary residence from her assets as she spends down to medically needy levels. However, if a state determines that a beneficiary is permanently institutionalized, it may deem the house a countable asset and force its sale, so long as the recipient's spouse, dependent child (or, in limited cases, a sibling) does not live in that home. Moreover, under the same circumstances, federal law permits (but does not require) states to place liens on a permanently institutionalized Medicaid recipient's home. (Although medically needy nursing home residents may not transfer an asset for less than market value, federal law does not prevent the spouse remaining in the community from making such a transfer. In addition, Medicaid applicants may not have made such a transfer within the past 30 months. For some chronic conditions that develop slowly, like Alzheimer's, this look-back period may be too short to prevent asset shifts. These loopholes permit some families to shift sizable assets to the next generation while obtaining Medicaid coverage of current nursing home costs. These loopholes need to be closed at the federal level.)

As the Massachusetts Taxpayers Foundation has pointed out, Massachusetts is one of four states that place no restriction on an institutionalized Medicaid recipient's ownership of a home. Another twenty-seven states place no time restrictions on an institutionalized recipient's home ownership as long as the beneficiary has expressed an intent, usually in writing, to return to that home. However, five states require a doctor to determine whether the recipient is likely to return home and thirteen end the protection of a home after 6 to 12 months of institutionalization.

Roughly half the states (including Massachusetts) make provision for recovering funds from elderly recipients' estates, but only a few, like Oregon and California, currently have vigorous estate recovery programs. In 1985, however, Massachusetts was one of the most ambitious states in undertaking probate recoveries. It ranked fourth out of 21 states in recoveries as a share of nursing facility payments. In that year it recovered \$4.8 million at a cost of \$93,000. By 1988, however, its recoveries had declined to

about one-third their 1985 level—perhaps because by the time the federal government took its matching share, the 1985 effort only yielded the equivalent of 0.2 percent of state Medicaid payments. In Oregon, by contrast, the 1985 effort yielded 0.8 percent of state Medicaid payments. Nevertheless, following the principle that the elderly have a responsibility to provide for their own long-term care needs before passing significant assets on to their heirs, this program might bear further investigation.

Oregon officials claim that their program is well understood and accepted, and the potential value of recoveries would appear to be as great or greater than the family contribution program just initiated. At the median price of existing homes in the Northeast in 1985, the \$4.8 million collected by the Massachusetts estate recovery program represented some 50 houses. (Over 80 percent of the homes owned by the elderly are free of mortgages.) With over 40,000 Medicaid recipients living in nursing homes (other than facilities for the mentally retarded) in that year, the potential yield from estate recovery or lien programs must have been considerably greater than \$4.8 million. In other words, placing liens on institutionalized Medicaid recipients' homes and exercising them as a matter of course when permitted seems potentially more productive than pursuing sometimes reluctant adult children around the globe.

Reducing the Return to the Provider

Any prepaid delivery mechanism or prospective reimbursement system requires the provider to risk paying the marginal cost of care. (In this context "provider" refers to contracting organizations like HMOs in addition to the institutions and physicians giving direct care.) An important advantage to HMOs and similar prepaid provider mechanisms is that they present strong incentives to minimize unnecessary care. They also foster efficient delivery. On the other hand, they may encourage the provider to stint on quality of care. For this reason it may be useful to let recipients vote with their feet instead of forcing them to go to a specific prepaid provider. The Massachusetts Budget Control and Reform Act requires the Department of Public Health to establish an HMO as a demonstration project and to penalize recipients within the HMO area if they use other providers. While it is important in assessing an HMO's cost effectiveness to make sure that it is serving a broad cross-section of patients, allowing Medicaid recipients to go to one of several HMOs/PPOs rather than

requiring a specific organization might facilitate quality control.

Prospective payments systems for hospitals and nursing homes (wherein reimbursement rates are set in advance) also place the provider at risk of paying a share of marginal costs. Accordingly, they may provide incentives to avoid expensive patients. For this reason, best-practice reimbursement systems should incorporate a set of payment categories instead of using one flat rate. Examples of payment classes include the diagnosis-related groupings (DRGs) used by Medicare for hospitals, the 16 resource utilization groups (RUGs) used by the State of New York for nursing homes and the relative value scales (RVSs) used by a few states for physicians' services.

Moreover, if Medicaid rates are set below those for other area patients, Medicaid recipients will have trouble getting care. Maintaining access has been an ongoing problem for the Medicaid program all across the country. For example, Michigan nursing home operators acknowledged in federal court that they respond to inadequate Medicaid rates by reducing the quality of care or curbing access for Medicaid beneficiaries (Pear 1990). In Massachusetts too, Medicaid fees for physicians were sufficiently low in the mid-1980s that administrators became concerned about an access problem. For example, in 1986 the Medicaid maximum payment for an appendectomy was only 45 percent of the Medicare maximum allowable charge in Massachusetts, compared to 61 percent in the average state. Accordingly, in 1987 the Rate Setting Commission permitted increases averaging 56 percent over two years to bring rates close to Blue Cross levels. To maintain access for Medicaid benefi-

If Medicaid rates are set below those for other area patients, Medicaid recipients will have trouble getting care.

ciaries, thus, a best-practice reimbursement system should probably incorporate an all-payor rate-setting methodology. In an all-payor system, all third-party payors—Medicaid, Medicare and private insurance companies—base their payments on the same rates or rate-setting methodology.

In addition to maintaining Medicaid access, an-

other advantage to an all-payor system is that it undoubtedly strengthens the state's negotiating power. State governments have recently realized that although the third-party payment system has weakened market forces, it has not totally destroyed them. While individual states may have limited bargaining power, together or with the federal government they have a good deal of negotiating strength. The growing surplus of hospital beds and the fierce competition among various pharmacies and drug companies suggest that collective action by the states in volume purchasing and negotiations with providers might yield results.

Several states have negotiated volume purchases of optical services, laboratory services, hearing aids, wheelchairs and oxygen. In addition, a good many states responded positively to Merck and Glaxo's 1990 offer of best prices or discounts to all states that did not bar any of their products from Medicaid coverage. In the event, the October 1990 federal budget package overtook these negotiations. The provision requires the pharmaceutical companies to give discounts on prescription drugs purchased by state Medicaid programs and is expected to save state governments \$1.5 billion over five years (Freudenheim, November 6, 1990). Whether these savings materialize remains to be seen because the states may no longer bar, although they may restrict, Medicaid payments for some of the drug companies' most expensive products.

Massachusetts' reimbursement system is probably the weakest part of its Medicaid program. The details are complicated, with each provider type governed by a different approach. In summary, however, the Commonwealth has been relatively slow to move from a passive, retrospective payment system, wherein providers billed and Medicaid paid for whatever services they had rendered, to a prospective system with pre-established rates. Nursing homes, for example, are currently in the midst of moving to a prospective system, with one-half changing in FY1990 and the rest in FY1991. Moreover, while the reimbursement system used for nursing homes now distinguishes between 11 categories of care, the Medicaid hospital system does not use the diagnosis-related groupings (DRGs) that many states and Medicare have found useful. Massachusetts physicians have always been reimbursed according to an administered fee-for-service schedule; the state does not use RVSs. In addition, although Massachusetts pioneered an all-payor system for the acute-care hospitals, it now operates on an all-payor-except-Medicare

basis. It did not seek a waiver of the federal requirement that Medicare use DRGs.

Currently, the state also budgets institution-specific rates for hospitals and nursing homes rather than setting a flat rate across the board. The Senate Ways and Means Committee is recommending that the Rate Setting Commission move toward a normative standard rather than a provider-specific methodology "to simulate the effects of a competitive market." While the Ways and Means Committee is probably correct in expecting a flat rate to be more effective in curbing costs, uniform rates tend to penalize institutions offering high-quality care. The conflict continues. . . .

As for volume purchasing, in late 1987 Massachusetts was one of 16 states negotiating bulk purchases of optical supplies, but it was not quick to pursue such initiatives in other areas. It was also not quick to accept Merck and Glaxo's bargain—with reason, because opening the state's list of Medicaid-approved drugs to all expensive new products could have more than offset the proffered discounts. Under the new federal legislation, the state may require physicians to justify their use of these expensive drugs.

The Massachusetts legislature is encouraging state Medicaid officials to use their new-found negotiating strength more broadly. These officials may find themselves in a reasonably strong position vis-à-vis local providers because the state has above-average numbers of physicians, hospital beds and nursing home beds in relation to its population (or nursing home beds in relation to its elderly population).¹³

Managed Care

Managed care represents a flexible form of rationing that stands a chance of reducing waste more and transferring costs less than does rationing by administrative list or limit. Managed care systems could include screening, second opinions and peer review, in addition to contracts with managed care providers, such as HMOs or individual physicians who oversee patient care on a fee-for-service basis. On the other hand, although a currently popular concept, managed care is not a panacea. It may reduce waste, but it will not slow technological or demographic change. Its administration also requires resources.

Nevertheless, the scope for reducing waste by such methods appears substantial. For example, the

World Health Organization has pointed out that "there is no justification for any region to have a rate (of Caesarean sections) higher than 10 to 15 percent" (Terris 1990). Yet in the United States the rate is over 25 percent. Other surgical procedures that appear to be greatly over-used in this country include tonsillectomies, hysterectomies, and, arguably, bypass surgery. Utilization of these procedures varies greatly across the states and even from one side of town to another. Given Massachusetts' high-cost and "procedure-intensive" medical care, it is likely that its utilization rates are on the high side.

One advantage to managed care is that some consumers might welcome it. Given the pain and inconvenience involved, no one wants to face unnecessary procedures even at little or no financial cost. Accordingly, consumers might embrace case management or second opinions as ways of obtaining objective advice on the most effective course of action. In other words, managed care could help reduce an important source of market failure that discourages efficient medical care—the dearth of well-informed and rational consumers. While doctors may resent case-by-case "peer" reviews, especially by non-physicians, perhaps they would not object to a periodic report on the rate at which they perform certain procedures compared to the regional, national, and "best practice" standards. Perhaps similar lists showing the rate at which hospitals perform certain procedures, their charges, and their mortality rates could be made available to the public. Patients may not be interested in cost; they are certainly interested in benefit.

Massachusetts introduced managed care on a limited basis early on, and with recent legislation, it is moving even more aggressively in that direction. Indeed, the budget for FY1991 requires that all Medicaid recipients be enrolled in some type of managed care program by the beginning of 1992. While an increased emphasis on managed care seems entirely appropriate, this particular initiative is very ambitious and, unfortunately, includes no provision for evaluation.

The Massachusetts appropriations act of FY1991 contains an example of a peer review program that emphasizes education as well as immediate cost control and should benefit the Medicaid recipient as well as the Massachusetts taxpayer. The legislation establishes a drug utilization review to identify and remedy underutilization as well as overutilization of prescription drugs, prescribing and dispensing patterns inconsistent with norms, acceptable medical

practice or program regulation, and risks of patient harm from drug therapy failure, adverse reactions or contraindicated drug use. The program is also required to identify trends in drug utilization in institutional care settings (are certain nursing homes oversedating their residents?) and to assess the effects of new drugs on therapeutic efficacy as well as program costs.

Another section of the same act requires a study of the top 1,000 recipients and providers of Medicaid services in order to identify patterns of inappropriate and inefficient use. Like the drug utilization review, this study could be used as the basis for a peer review and consumer education program.

Governments at all levels, here and abroad, are grappling with the problem of controlling health care costs. Agreement about what methods work best is limited but growing. Under these circumstances, Massachusetts must proceed, but proceed cautiously, with its own carefully evaluated experiments—with the beneficiaries assigned at random to the experimental program or to a control group. Other states' experiences also warrant serious review. Accordingly, the establishment of several study commissions—on health agency consolidation, the administrative needs of the Medicaid program, benefits and long-term care eligibility reform—as required by the appropriations act is fully appropriate. By contrast, other provisions of the same act appear self-contradictory, redundant, and hasty. Changes made just for the sake of "doing something about Medicaid" are unlikely to prove very effective.

VI. Conclusions

As this chapter has pointed out, financing Medicaid has become a serious problem for all state governments. In Massachusetts, as elsewhere, Medicaid is the single largest and one of the fastest-growing programs in the state budget. Soaring national health care costs account for most of the program's explosive growth. By contrast, and contrary to widespread opinion, the aging of the country's population and the growing need for expensive long-term care have not been the primary forces driving Medicaid spending over the last 15 years. The success of Social Security and private pensions in reducing poverty among the elderly has offset and postponed the likely impact of changing demographics on the Medicaid program. With the states facing sizable difficulties in funding Medicaid even now,

this conclusion merely underscores the nation's need to address the issue of paying for long-term care.

While Massachusetts has plenty of company in its Medicaid miseries, the state's Medicaid expenditures still look high compared to its population and its income. These above-average expenditures reflect the state's relatively generous eligibility criteria, its comprehensive benefits, and Massachusetts' relatively high health care costs. Massachusetts' categorically needy program covers 81 percent of its indigent population compared with 56 percent for the nation. Its medically needy program covers an above-average share of the elderly population as well. Whether this coverage is overly generous or barely adequate is a political question that is likely to become increasingly audible if the current economic downturn continues. Until recently, a relatively strong economy and low unemployment rate have offset Massachusetts' relatively generous eligibility criteria, thus keeping the state's ratio of Medicaid recipients to total population close to the national average. Should the downturn continue, however, the balance may tip, with adverse consequences for the state budget.

Massachusetts' Medicaid payments per recipient are also well above average—77 percent above average in FY1989. Much of this difference disappears when the composition of the state's recipient pool is taken into account; however, even after adjusting for composition, Massachusetts' payments per recipient were 23 percent above the national average. This difference reflects the comprehensive nature of the services and programs covered by Medicaid in Massachusetts. It also reflects Massachusetts' well-above-average health care costs.

How can Massachusetts control its Medicaid spending? Policymakers face two choices. They can shift costs to the private sector by reducing benefits permitted but not required by the federal government, and they can make the existing program more efficient. Paring the program back to mandatory levels represents the most Draconian policy choice and sets the ceiling for potential public sector savings. Eliminating all optional benefits could cut Massachusetts' Medicaid spending by roughly two-thirds in the immediate term. The great bulk of these public sector savings would stem from terminating the medically needy program or coverage of long-term care provided by the ICFs. Such an action would be unique in the annals of Medicaid history and would concentrate large financial, medical, and emotional costs on elderly and mentally retarded individuals (and their families if they exist). The state govern-

ment's savings would be smaller on a net than on a gross basis because of the loss of federal reimbursements. Moreover, in time, some fraction of these "savings" would undoubtedly resurface within Medicaid or in other income support and health care programs fully funded by the state. Unfortunately, the state does not have the information it needs to trace the links between various state and federal support programs and, thus, to make well-informed decisions. Finally, the share of the public sector "savings" that resulted in additional uncompensated care would largely be paid by the private sector through higher medical and health insurance bills.

If Massachusetts policymakers determine that a drastic restructuring of the state's Medicaid program is unwise, they must turn their attention to the less dramatic but crucially important issue of reducing inefficiencies in the health care system. Indeed, they must turn their attention to this problem in any event lest the mandatory portion of the Medicaid program continue to mushroom at budget-buster rates. However, because Medicaid operates as part of the state's high-cost health care system, it cannot be reformed in isolation. Achieving ongoing savings within Medicaid requires curbing cost increases throughout the entire health care system.

All sectors of society are groping for ways to limit

rising health care costs, and little consensus concerning the best approach exists. Nevertheless, other states' experiments provide a few useful guideposts. For example, prospective, all-payor reimbursement systems with sufficient payment categories show some promise of slowing the rise in health care costs. Increased use of managed care may yield results as well. Similarly, a more promising alternative to Massachusetts' current efforts to force the families of elderly nursing home recipients to share the costs of their care might be a reinvigorated estate recovery or lien program. Nevertheless, any efforts to experiment with "best-practice" reimbursement and delivery systems need to be designed and financed to permit careful evaluation.

All in all, many of the changes in the Massachusetts Medicaid program embodied in recent legislation seem to be steps in the right direction. In particular, the increased emphasis on managed care, peer reviews, negotiated prices, and study commissions appears appropriate. Other reforms, such as the sunset provisions for optional benefits, seem more problematic. Measures taken in haste without careful evaluation could prove medically disastrous for some Massachusetts citizens and fiscally unproductive for the state.

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¹ These projections were made before the October 1990 federal budget package required states to broaden their Medicaid coverage for poor children and the elderly. These federal mandates could raise Massachusetts' Medicaid expenditures by an additional 6 percent (from FY 1989 levels) over a five-year period. Federal legislators anticipate, however, that most of the costs of program expansion will be offset by another provision in the budget package—a requirement that pharmaceutical companies provide discounts on prescription drugs purchased by Medicaid.

² Currently, states must provide Medicaid services to poor children under six. The age limit will rise by one year annually for the next 13 years.

³ One such group includes pregnant women and infants to age one whose family income falls below 185 percent of the federal poverty level.

⁴ Throughout this article, Massachusetts is compared with a group of 16 similar states. The group includes the other New England states, six high technology states (Arizona, California, Maryland, North Carolina, Texas and Washington) and five mature industrial states (Illinois, New Jersey, New York, Michigan and Pennsylvania).

⁵ Out-of-pocket private pay covered 48 percent and private

insurance a mere 1 percent. The balance was covered by the Veterans Administration and state and local government public health expenditures.

⁶ In addition, individuals who originally qualify for Medicaid as disabled sometimes retain that designation after they become aged.

⁷ Until recently, states had to apply for waivers to offer Medicaid coverage for home care. The October 1990 federal budget package gave states the option of providing Medicaid coverage of home care for frail or immobile elderly citizens. Federal contributions are capped at \$580 million over a five-year period (Bacon 1990).

⁸ Not adjusted for racial mix. Black infant mortality is well above average.

⁹ The price tag associated with some of these choices will be discussed further in the section on rationing.

¹⁰ Since federal legislation is extending Medicaid coverage to all children from families with income below the federal poverty level, any similar cuts in numbers of eligible AFDC children would be short-lived.

¹¹ Critics of these results believe that the authors did not adjust adequately for special factors such as the amount of research performed in Massachusetts hospitals or the number of out-of-state (and, thus, presumably seriously ill) patients.

¹² This estimate excludes AFDC children from the assumed policy change because of recent federal legislation broadening required coverage of poor children.

¹³ The Massachusetts ratio of nursing home beds to its elderly population fell from well above to just slightly above the national average between 1976 and 1987.

References

- Aaron, Henry J. 1982. *Economic Aspects of the Role of Government in Health Care*. Brooking General Series Reprint no. 382. Washington, D.C.: The Brookings Institution.
- Bacon, Kenneth H. 1990. "Children, Elderly to Receive Increased Medicaid Benefits." *The Wall Street Journal*, October 29.
- Ball, Robert M. and Thomas N. Bethel. 1989. *Because We're All In This Together: The Case For A National Long Term Care Insurance Policy*. Washington, D.C.: Families USA Foundation.
- Beer, Nancy G. and John R. Lago. 1987. *The Dynamics and Directions of New Jersey Medicaid*. Working Paper no. 10, Council on New Jersey Affairs, Program for New Jersey Affairs, Princeton Urban and Regional Research Center, Woodrow Wilson School of Public and International Affairs, Princeton University, Princeton, N.J.
- Berman, Melissa A. ed. 1988. *A Harder Look at Health Care Costs*. Research Report No. 910. New York, N.Y.: The Conference Board.
- Boston University School of Public Health, Access and Affordability Monitoring Project. 1990. "Hospital Expenses: Massachusetts vs. United States." Boston, MA, September 11.
- Brown, Lawrence D. 1988. *Health Policy in the United States: Issues and Options*. Occasional Paper 4, Ford Foundation Project on Social Welfare and the American Future (September). New York, N.Y.: Ford Foundation.
- Carpenter, Letty. 1988. "Medical Eligibility for Persons in Nursing Homes." *Health Care Financing Review*, vol. 10, Winter.
- Coder, John, Lee Rainwater and Timothy Sneed. 1989. "Inequality among Children and Elderly in Ten Modern Nations: The United States in an International Context." *A.E.A. Papers and Proceedings*, May.
- Committee for Economic Development. 1987. *Reforming Health Care: A Market Prescription: A Statement by the Research and Policy Committee of the Committee for Economic Development*. New York, N.Y.: CED.
- Congressional Research Service. 1988. *Medicaid Source Book: Background Data and Analysis*. A Report Prepared for the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, U.S. House of Representatives (November). Washington, D.C.: Government Printing Office.
- Commonwealth of Massachusetts, The Senate Committee on Ways and Means. 1990. *Budgeting for Economic Recovery: Fiscal Year 1991 Budget Recommendations* (June). Boston, MA.
- Commonwealth of Massachusetts, 1990. *An Act Making Appropriations for the Fiscal Year Nineteen Hundred and Ninety-One for the Maintenance of the Departments, Boards, Commissions, Institutions and Certain Activities of the Commonwealth, for Interest, Sinking Fund and Serial Bond Requirements and for Certain Permanent Improvements*. Boston, MA.
- . 1989. *An Act Establishing The Budget Control and Reform Act of 1989*. Boston, MA.
- . 1990. *House No.1: The Governor's Budget Submission, Fiscal Year 1991*. January 24.
- Ebrill, Liam P. 1990. "The U.S. Health Care Industry: Performance and Issues." I.M.F. Working Paper (January).
- Erdman, Karen and Sydney M. Wolf, M.D. 1987. *Poor Health Care for Poor Americans: A Ranking of State Medicaid Programs*. Washington, D.C.: Public Citizen Health Research Group.
- Families USA Foundation. 1990. *Rising Health Costs in America: 1980-1990-2000*. A Families USA Foundation Report in Cooperation with Citizen Action. Washington, D.C.: October.
- Feldstein, Martin. 1977. "Hospital Cost Inflation and National Health Insurance." Presented as the Carl Snyder Memorial Lecture at the University of California at Santa Barbara, January 18.
- First National Bank of Chicago. 1990. *The Commonwealth of Massachusetts Profile Book*. Chicago, IL (June).
- Freudenheim, Milton. 1990. "Business and Health: Medicaid Fight By Drug Makers." *The New York Times*, July 31.
- . 1990. "Business and Health: Big Costs Imposed on Drug Makers." *The New York Times*, November 6.
- Ginsburg, Paul B. and Jonathan H. Sunshine. 1987. *Cost Management in Employee Health Plans*. Santa Monica, CA.: The Rand Corporation, October.
- Gordon, Harley and Jane Daniel. 1990. *How to Protect Your Life Savings from Catastrophic Illness and Nursing Homes: A Handbook for Financial Survival*. Financial Planning Institute, Boston, MA.
- Governor's Management Task Force (Crozier Commission). 1990. *Massachusetts: Managing Our Future*. Boston, MA.
- Gray, Wendy B. and Susan Henricksen, eds. 1990. "A Bottom Line Perspective on Health Care Costs." Conference Board Report No. 939, New York, N.Y.: The Conference Board, Inc.
- Holahan, John F. and Joel W. Cohen. 1986. *Medicaid: The Trade-off Between Cost Containment and Access to Care*. Washington, D.C.: The Urban Institute Press.
- Intergovernmental Health Policy Project. 1990. *Major Changes in State Medicaid and Indigent Care Programs: 1989*. Washington D.C.: The George Washington University.
- Knox, Richard A. 1990. "Oregon Strips Its Medicaid Benefits Plan." *The Boston Globe*, July 9.
- Kosterlitz, Julie. 1990. "Health Report: Seeking the Cure." *National Journal*, March 24, pp. 708-14.
- Kotlikoff, Laurence J. 1989. "On the Contribution of Economics to the Evaluation and Formation of Social Insurance Policy." *The American Economic Review*, vol. 79, May, pp. 184-190.
- Kusserow, Richard P. 1988. "Medicaid Estate Recoveries." Washington, D.C.: U.S. Department of Health and Human Services (July).
- Levit, Katherine R., Mark S. Freeland and Daniel R. Waldo. 1989. "Health Spending and Ability to Pay: Business, Individuals and Government." *Health Care Financing Review*, vol. 10, Spring, pp. 1-11.
- Lindsay, Phoebe A. 1989. "Medicaid Utilization Control Programs: Result of a 1987 Study." *Health Care Financing Review*, vol. 10, Summer, pp. 79-92.
- Massachusetts Federation of Nursing Homes. 1990. "Facts About Long-Term Care in Massachusetts." Dedham, MA (June).
- Massachusetts Department of Public Health. 1988. *Massachusetts Nursing and Rest Home Trends: 1978-86* (September).
- . 1989. *Elderly Residents of Massachusetts Nursing Homes: A Profile*. (June).
- . 1990. *The Elderly in Massachusetts: Demographics and Mortality Characteristics* (February).
- Massachusetts Taxpayers Foundation, Inc. 1990. "What Next: MTF Proposal to Restore Fiscal Stability." Boston, MA. December 5.
- Munnell, Alicia H. 1987. "The Current Status of Our Social Welfare System." *New England Economic Review*, July/August, pp. 3-12.
- Neuschler, Edward. 1988. *Medicaid Eligibility for Frail Elders*. Background Paper Series: No. 10. Baltimore, MD: The Commonwealth Fund Commission on Elderly People Living Alone.
- Newhouse, Joseph P. 1989. "The Baxter Foundation Prize Address: Measuring Medical Prices and Understanding Their Effects." *The Journal of Health Administration Education*, vol. 7:1 (Winter), pp. 19-26.
- Oxford Review of Economic Policy: Health*. 1989. vol. 5, no. 1 (Spring). Entire issue devoted to health care.
- Pear, Robert. 1990. "Ruling May Lead to Big Rise in States' Medicaid Cost." *The New York Times*, July 5.
- Rice, Dorothy P. 1989. "Health and Long-Term Care for the Aged." *The American Economic Review*, vol. 79, May, pp. 343-48.
- Russell, Louise B. 1989. "Proposed: A Comprehensive Health Care System for the Poor." *The Brookings Review*, Summer, pp. 13-20.
- Schwartz, William B. and Henry J. Aaron. 1990. "The Achilles Heel of Health Care Rationing." *The New York Times*, July 7.
- Summers, Lawrence H. 1989. "Some Simple Economics of Man-

- dated Benefits." *The American Economic Review*, vol. 79, May, pp. 177-183.
- Terris, Milton. 1990. "Lessons from Canada's Health Program." *Technology Review*, vol. 93, no. 2 (February/March), pp. 27-33.
- U.S. Congress, Office of Technology Assessment. 1987. *Losing A Million Minds: Confronting The Tragedy of Alzheimer's Disease and Other Dementias*. OTA-BA-323. Washington, D.C.: Government Printing Office.
- U.S. Congress. House of Representatives. Committee on Government Operations. 1988. *From Back Wards to Back Streets: The Failure of the Federal Government in Providing Services for the Mentally Ill: Forty-First Report by the Committee on Government Operations*. Washington, D.C.: Government Printing Office.
- U.S. Congress. House of Representatives. Committee on Ways and Means. 1990. *1990 Green Book; Overview of Entitlement Programs; Background Material and Data on Programs within the Jurisdiction of the Committee on Ways and Means* (June 5). Washington, D.C.: Government Printing Office.
- U.S. General Accounting Office. 1989. *Report to Congressional Committees: Medicaid; Recoveries from Nursing Home Residents' Estates Could Offset Program Costs* (March).
- U.S. Department of Health and Human Services. National Center for Health Statistics. 1989. *Health: United States, 1988*. DHHS pub. no. (PHS) 89-1232 (March). Washington, D.C.: Government Printing Office.
- U.S. Department of the Treasury. 1990. *Financing Health and Long Term Care: Report to the President and the Congress*. Washington, D.C. (March).
- Vertrees, James C., Kenneth A. Manton, and Gerald S. Adler. 1989. "Cost Effectiveness of Home and Community-Based Care." *Health Care Financing Review*, vol. 10, Summer.
- Wiener, Joshua M. and Katherine M. Harris. 1990. "Myths & Realities: Why Most of What Everybody Knows About Long-Term Care Is Wrong." *The Brookings Review*, Fall, pp. 29-34.
- Winslow, Ron. 1990. "Health Costs." *The Wall Street Journal*, June 27.