Chapter 8

Health Care Costs and Access to Technology for Older Persons

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Introduction

Health care costs, including long-term care expenditures, have grown rapidly over the last three decades, increasing from $12.7 billion (4.4 percent of gross national product (GNP)) in 1950, to $322.6 billion (10.5 percent of GNP) in 1982 and an estimated $357 billion in 1983. Total health care expenditures are projected to reach 12 percent of GNP by the year 2000 or sooner (10,15). Growth in per capita health care costs, augmented by the growth in numbers of the U.S. population over 65, has produced an impending crisis in the funding of Medicare and Medicaid, major payers for health service to the elderly.

Technological development in recent decades has increased the effectiveness and sophistication of health care. It has also increased its costs, The relationships between cost, technology, and financing are complex, in some cases not well understood, and require continuing investigation. Although new medical technologies' have raised the cost of care—by expanding the types of problems that can be diagnosed and treated–they have also provided more efficient strategies for the management of acute and chronic disease and functional disability. Depending on how it is applied, the same technology can be either cost-saving or cost-enhancing. Exercise electrocardiography, for example—a noninvasive diagnostic test for coronary heart disease—can be cost-saving if it is used to screen candidates for invasive diagnostic evaluation, thereby reducing the number of invasive tests. If it is simply added to the diagnostic workup for patients for whom invasive testing is already planned, it increases the cost of care. The net effect of technology on the cost of care therefore depends on both the technology and the ways in which it is used.

1OTA defines medical technologies as **cirugs,** devices, **and** medical **and surgical procedures used in medical care, and the organizational and support systems within which they are produced.**

If the growth of health expenditures can be contained at levels comparable to the general rate of inflation, these expenditures will halt their encroachment on the Nation's resources. How much health care is enough, who is responsible for paying, to what extent equality of access should be assured, and other ethical questions combine with questions of necessity and appropriateness to create an exceedingly complex set of issues that apply to all age groups of consumers and all payers for care. This chapter emphasizes issues related to technology and the aging of the U.S. populatim in the context of the demand for fiscal restraint.

Control of escalating health care spending is a priority in light of current and projected Federal deficits as well as the growing costs of employee health plans and personal expenditures for care. Because those over 65 use more health services than any other age group and the Federal Government has assumed significant responsibility for funding these services, the kinds and costs of care for the elderly are a particular congressional concern. Instituting effective controls over costs of covered benefits as well as total health spending thus deserves increased attention.

Congress has paid some attention to slowing the growth of these costs. Direct attention has been given to controlling Federal expenditures for Medicare and Federal contributions to Medicaid. Total savings may be reduced by cost **shifting to** third-party payers and individuals, or from one Federal program to another. Entitlement programs are primary concerns because their costs are less easily controlled than other Federal health activities.

Access to health-related technologies—for those over 65 and for the poor of all ages—has also been a major congressional concern. Recognizing that

the cost of technologies can be a strong deterrent to their availability and use, Congress has legislated programs to assist these people with the purchase of health care. Medicare is the largest Federal health care financing program. Medicaid is a federally aided, State-run, means-tested (eligibility based on income) program that provides health benefits for the categorically needy, including the poor elderly. The Veterans Administration (VA) provides resources for the care of older veterans. In addition, the Federal Government provides funding for health resource programs (e.g., block grants to States, health planning) designed to improve the distribution, supply, and cost effectiveness of these services.

Federal policy for health and long-term care has in part shaped the development of technology, the settings in which it is used, and access to it for those over 65. The rate of adoption, and hence the availability of a new technology, is strongly influenced by whether or not it is eligible for reimbursement and whether it is regulated by health planning activities. Because reimbursement has been more liberal for inpatient procedures, hospital-based care has been encouraged. Recent changes have encouraged more outpatient diagnostic and surgical procedures. The implementation of prospective payment under Medicare, as discussed earlier and in this chapter, may shift the more acutely ill patients and the technologies for their care to outpatient clinics, nursing facilities, and home care settings. More sophisticated technology and personnel may thus be required in these settings which, in turn, may increase the cost of care in them.

Because Federal payments for health care represent about one-third of total hospital revenues, one-third to one-half of physician payments, and about half the cost of long-term care, changes in Federal reimbursement strategies may induce changes in the use of technology throughout the health care system. To the extent that other payers do not adopt similar strategies and providers are able to maintain full practices without participating in Federal programs, older persons who depend on these programs may suffer reduced access to health care technologies. Even under cost reimbursement policies for acute care, a number of technologies are identified elsewhere in this report that would be beneficial to the over-65 age group but maybe currently underutilized, This results, in part, because of their cost and the lack of reimbursement under Federal and State programs. Coverage for additional services could increase overall costs, but there is potential for limiting the increase by achieving greater functional independence.

Federal and federally assisted State programs provide acute and long-term care for the elderly. Medicare, Medicaid,[2] income support programs, services through block-granted programs, and VA programs are among the efforts to provide care for those over 65. Using these benefits to access the proper mix of acute and chronic health care, as well as appropriate supportive and social services, can be difficult. Lack of continuity of services can sometimes lead to inappropriate and poor quality of care and increased costs due to duplicated services and the loss of functional independence.

A number of observers have identified mismatches between Federal and private health benefits and the needs of an aging population (9,39,40). The success of the Medicare program in providing access to acute care technologies has contributed to the recent declines in mortality for those over 65. However, as noted in chapters 2 and 3, decreasing mortality has not been accompanied by comparable declines in morbidity in the older population, and the elderly therefore carry a larger burden of illness (36). Growing numbers of older individuals with multiple health problems will continue to increase the demand for technologies to prevent and manage chronic disease and for long-term care (10,14). Policymakers focusing on cost containment must recognize that the changing needs of the population served by Medicare have increased Medicare costs and stimulated spillovers into other Federal programs, most notably Medicaid. This mismatch between needs and benefits has resulted in increased out-of-pocket spending by individuals as well. Increased costs may deter older users from seeking needed care for correctable problems (e.g., blood-pressure

[2]Many older persons requiring long-term care come to depend on Medicaid benefits by "spending down" enough to become eligible, i.e., by liquidating assets and exhausting their finances on high-cost, long-term care.

control, vision problems, and routine health evaluations for chronic disorders), potentially resulting in greater ultimate costs for acute and restorative care.

The financial burden of long-term care is a particularly severe problem for those over 75 because the risk of needing prolonged care increases with age. Few benefits are provided by Medicare, and private insurance is largely unavailable to protect against this eventuality. Medicaid is the only safety net and provides benefits only after personal resources are exhausted. Depletion of resources may have the additional effect of eliminating future opportunities for community care. Should a patient's condition improve or the availability of new technologies permit a transition, the patient might no longer have a residence or lack the means to be financially independent.

This chapter provides an overview of factors affecting health expenditures and cost-containment efforts. Included are a comparison of spending by those over 65 and by younger age groups; the contribution of technology, aging, and other factors to growth in health care costs; the goals for appropriate use of technology; the characteristics of older health care consumers that influence their use of services and technologies; cost-containment activities and some of their implications for cost and quality of care; and the need for better coordination among Federal programs. The hospital backup problem is explored as an example of the impact of poor coordination on costs and quality of care. The potential for better access to information as a means to improve coordination and outcomes is also discussed. The major issues are then detailed, and options are presented for congressional consideration.

Health spending of young and old

Health care spending differs significantly among various age groups. **In 1978,** those under 19 (31 percent of the U.S. population) accounted for 12 percent of the $168 billion health care expenditure, while those 19 to 64 (58 percent of the population) accounted for 59 percent, and those over 65 (11 percent of the population) accounted for 29 percent of the total. This higher per capita spending by older age groups results from increased contact with the health care system and an increased number of services required per visit.

Sources of payment also differ by age group. Public and private health benefits provided by government, industry, and direct purchase of insurance have grown for all age groups. Private insurance and personal expenditures are the major sources of payment for younger persons (about 70 percent), while government (Federal, State, and local) finances the greater proportion of the care provided for those over 65 (about 63 percent) (14), as shown in figure 24.

Hospital care represents the major expenditure for all age groups, but its relative importance increases with age. Physician services rank second to hospital care for younger persons and third after hospitals and nursing homes for the older population. Nursing home use is dominated by those over 65, and represents one-fourth of total health expenditures in this age group. Dental visits consume a smaller proportion of the health care budget for those over 65, but the average charge is higher than for those under 65. Annual per capita expenditures for prescription drugs and sundries increase threefold between the under-19 age group ($41) and the over-65 age group ($133) (14).

The growth of the older population will continue to exert pressure on Federal programs, but acceleration of health spending is a problem for individuals of all ages, their insurers, and their employers. Although Medicare and Medicaid provide an important subsidy affording some financial protection for the elderly, these programs do not eliminate the need for significant out-of -pocket outlays (see fig. 25). Many necessary services, such as eyeglasses, hearing aids, and extended nursing home care, are not covered by Medicare. Also, private supplemental ("medigap") insurance to cover deductibles is purchased by more than

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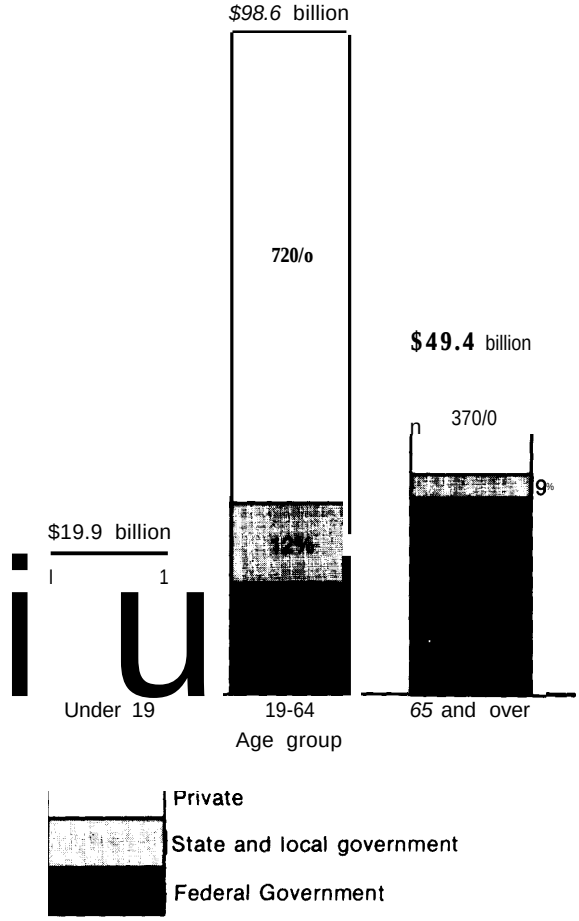
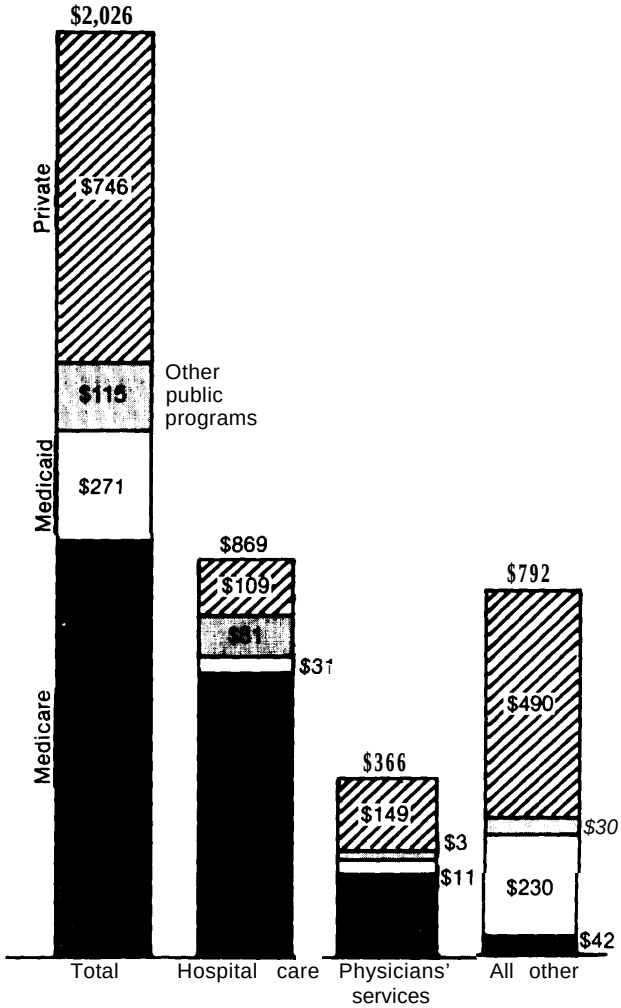
Figure 24.—Percentage Distribution of Personal Health Care Expenditures by Source of Funds and Age Group, 1978



SOURCE: Fisher, 1980 (14).

Figure 25.-Per Capita Personal Health Care Expenditures for the Aged, by Source of Funds and by Type of Care, 1978



SOURCE: Fisher, 1980 (14),

63 percent of the elderly, and another 14 percent receive Medicaid assistance (21). The value placed on protection against health expenses is underscored by the fact that personal income does not correlate with insurance premiums paid. In 1981, the out-of-pocket per capita expenditure of $914 for health services (excluding costs for insurance premiums) by those over 65 represented 11 percent of their per capita income. Recent estimates indicate that this proportion may reach 14 or 15 percent in 1984.

Technology, aging, and other factors affecting health expenditures

Much attention has been given to the increase in demand for health services resulting from the growth in the older population, especially the growth in numbers of those over 75. The elderly need and use more medical services. Yet the growth of this high-risk group accounts for only a small ***amount*** of the increase in total personal health care expenditures. Most of this increase has been brought about by general inflation; the increased cost of capital, labor, and supplies; inflation of medical care prices in excess of general inflation; and changes in the types and quantities of services provided—''service intensity ''—often used as a proxy measure for increased technology (11,15,46,48). Intensification of services includes not only the introduction of new technology but also increased labor intensity and more frequent use of existing technology. This section

explores the contribution of technology and aging of the population relative to other factors fueling the growth of health expenditures.

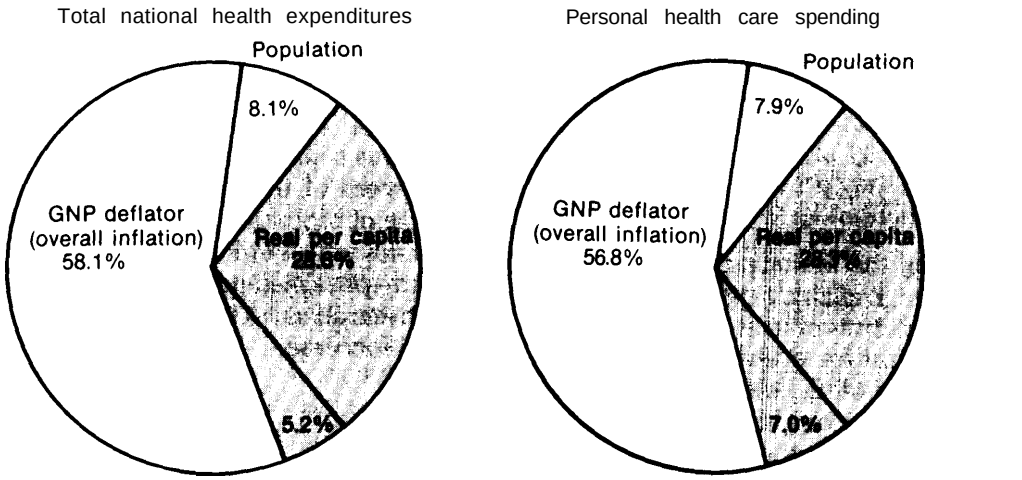
Among the economic, policy, and social factors to which analysts have attributed the growth in real spending (15,37,46,48) are:

- payment mechanisms:
  —third-party payers that insulate patients and physicians from true patient costs, and
  —fee-for-service and cost-based reimbursement methods that lack incentives to control costs;
- technological innovation:
  —product innovations that expand range of services, and
  —process innovations that can increase costs and quality of care;
- increased use of existing technology;
- population factors:
  —shifts in age-sex characteristics,
  —increases in real income, and
  –psychological factors such as the value of good health and a reluctance to forego heroic care; and
- health resources:
  -cost and supply of facilities,
  -cost and supply of equipment, and
  -cost and supply of manpower.

An analysis of health expenditures and costs between 1971 and 1981 shows that real increases in services accounted for 28.6 percent (fig. 26) of the increase in expenditures during that period (15). In specific terms, a recent study by the Congressional Budget Office found that the major increase in program outlays was due to increased benefits ***per user*** rather than to either increased enrollees in the program or increased proportions of those enrollees receiving services (table 18). Some of the increase in per capita costs reflects a growing burden of care due to the aging of the population (37 percent of those enrolled in Medicare were over 75 in 1966; this proportion rose to 41 percent in 1979), but utilization rates increased significantly even in the same age group (e.g., a 27-percent increase in hospital discharge rates in enrollees 65 to 66 between 1967 and 1976), suggesting higher utilization rates overall (45).

Medical technology is the primary factor in the increase in health expenditures. Analyses of the impact of medical technology on health care costs can be addressed in the aggregate or from a tech-

Figure 26.-Factors Accounting for Growth in Total Health Costs, 1971.81



NOTE: Health industry specific factors are shaded, Total systems cost is personal health care spending.

SOURCE: Freeland and Schendler, 1983 (15).

Table 18.—Average Annual Compound Rates of Growth of Benefits and Enrollees, Fiscal Years 1978-82 (in percent)

	Aged enrollees	Disabled enrollees[a]	All enrollees
Hospital insurance:			
Total benefits	**18.4**	***19.3***	18.5
Number of enrollees	2.3	***1.7***	2.2
Proportion of enrollees receiving reimbursement . . .	2.1	1.1	2.0
Benefits **per user . . .**	13.4	16.1	13.7
Supplementary medical insurance:			
Total benefits	**20.7**	***24.0***	21.2
Number of enrollees	**2.3**	***2.2***	2.2
Proportion of enrollees receiving reimbursement . . .	**2.9**	*2.0*	2.9
Benefits per user . . .	**14.7**	*19.0*	15.3

SOURCE: Congressional Budget Office, 1983 (45).

nology-specific perspective. The aggregate analysis is useful although it ignores the patient benefits derived from technological innovation. The technology-specific approach is helpful in establishing the cost effectiveness of a particular technology or class of technologies but ignores the overall impact on systems costs. Both kinds of analyses are important in assessing the structure and funding of health and long-term care. A recent OTA study on technology and the Medicare program (48) found that in the aggregate, technology-related factors—more services per enrollee and the increase in costs of those services in excess of general inflation-accounted for about 30 percent of the growth in Medicare costs per enrollee between 1977 and 1982. These factors—service intensity and excess medical price inflation—are influenced by other factors as well as technology. At best, they provide an oblique view of the impact of technology on costs of care.

Even recognizing the limitations of aggregate techniques and that available reports encompass all age groups, an analysis of total personal health expenditures is useful for evaluating the differential effects of technology and population factors on expenditures for hospital care, physician services, dental services, and nursing home care (table 19). General inflation accounted for about 50 percent of the increase in all categories of service. The technology-related factors discussed above accounted for about 35 percent of the increase in expenditures for hospital care and physician services, but less than 20 percent of the increase for dental care and nursing home services.

Utilization factors are related to population aging, reflecting older Americans' increased burden of illness, and to other factors that induce demand, as discussed later in the sections on cost containment and consumer characteristics. Aggregate population growth has been constant across different services, as would be expected, at about 7 percent. Per capita visits exhibit wide variability, ranging from —3.4 percent for physician visits to +18 percent for hospital outpatient services to +20 percent for nursing homes. Because these statistics reflect the net effect for all age groups, differences in utilization trends for different age groups should be noted. Visits to physicians and hospital discharges have been decreasing for younger age groups. Physician visits for persons over 65 have remained relatively constant while hospitalization rates, measured by both surgical and total discharges, have been increasing. Average lengths of stay have been decreasing for all age groups but remain longer for those over 65. The relative importance of the utilization-related factors would thus be greater in the over-65 age group.

The increase in costs for physician care between 1970 and 1979 was analyzed from a different perspective (37). The effect of technology was calculated indirectly as the residual, after accounting for other factors thought to be causally related to expenditure increases.[3] This residual was 11 percent (see table 20). Population aging was considered directly and accounted for 15 percent of the increase, due to increases in the size of high-risk groups such as the very old. Variables which influence demand for and access to care—physician-population ratio and insurance for physician services-accounted for 40 percent of the increase.

Whe independent variables selected for this regression study emphasized factors that might cause changes in health spending. The studies by Freeland and Schendler (15) and by (48). OTA decomposed expenditures into their component parts rather than attempting to identify causal factors. This illustrates the influence of underlying assumptions in these types of analyses.

Table 19.-Factors Accounting for Growth in Expenditures for Seiected Categories of Totai Systems Cost, 1971-81[a]

Factors accounting for "how" medical care expenditures rose	Community hospital care: Inpatient expenses[b]: Inpatient days	Community hospital care: Inpatient expenses[b]: Admissions	Community hospital care: Outpatient exPenses[b]	Physicians' services	Dentists' services	Nursing home care excluding ICF-MR	Total systems cost (personal health care)
Economy-wide factors:							
1. General inflation	51.7%	51.7%0	41 .60/0	58.1 0/0	58.60/o	53.00/0	56.80/0
2. Aggregate population growth	7.2	7.2	5.6	8.1	8.2	**7.4**	**7.9**
"Health-sector spacific" factors:							
3. Growth in ***per capita*** visits or patient days	4.2	8.6	17.9	-3.4	14.2	19.8	NA
4. Growth in real services per visit or per day (intensity)	25.2	20.8	25.3	27.4	17.6	13.1	NA
5. Medical care price increases relative to general price inflation	11.7	11.7	9.6	9.8	1.4	6.7	7.0
Addenda: Growth in real services *per capita*	—		—	—	—	—	28.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

= Not available.

tota svstems cost is called personal health care in Gibson and Waldo (1982).

[b]Community hospital expenses are split into inpatient and outpatient expenses using the American Hospital Association (1982) procedure.

[c]See table A-13 for price variables.

SOURCE: Freeland and Schendler, 1983 (15).

Table 20.- Relatlve Contribution of Different Factors to the Total Increase in Real Expenditures for Physician Services, 1970-79

Factors	Percent increase
Physician-population ratio	22
Total population growth	19
Age distribution of population	15
Insurance for physician's services	15
Per capita income	9
Specialty mix	1
Prices of practice inputs (other than M.D.)	8
Residual (technology)	11
Total	100

SOURCE: Adaptad from Sloan and Schwartz, 1983(37).

An analysis of the grow thinthe use and costs of home care showed that the average rate of increase in expenditures was 31 percent per year from 1971 to 1980. This increase is attributable to the growth in the number of individuals served (59 percent) increases in the number of visits for those served (7.4 percent), and rises in costs and charges for each visit (39.1 percent). Older patients use home health services at higher rates (34.8 **per 1,000 v.** 23.4 per 1,000) but received fewer visits (23.1 visits per person v. 26,1 visits per person) compared to the disabled (51). The increase in the number of persons served is in part due to the increased numbers of persons needing care, but is also strongly influenced by the growth in the number of home care agencies and changes in reimbursement policy. Although costs and charge increases are the technology-related elements, they also reflect a number of factors unrelated to technology.

The availability of home care is clearly an influential factor. There were 3,959 home health agencies certified to receive Medicare reimbursement as of June 1983. These include Visiting Nurses Associations, official health agencies (State and local government), hospital-based programs, proprietary agencies, private nonprofit programs, and rehabilitation and skilled nursing home-based programs.

Home care is likely to continue to grow and become more sophisticated with home health agencies, hospitals, and nursing homes diversifying to include more comprehensive outpatient services, including medical equipment for home use, particularly as reimbursement policy encourages earlier hospital discharges. New Federal policies during the last two decades have encouraged this growth. They include (34):

- 1965—Medicare/Medicaid bills were enacted that provide limited home health care reimbursement.
- 1968—Home care was required as an alternative to skilled nursing home care for Medicaid participation.
- 1972—The coinsurance requirement for Medicare Part B was eliminated.
- 1980—Medicare dropped the requirement for prior hospitalization and eliminated the limit on the number of visits deductible.
- 1982—The Tax Equity Financing Reform Act (TEFRA) permitted reimbursement for some hospice care.
- 1983—Prospective payment for hospital care was enacted and encouraged earlier discharges.

This brief review of several analyses of the growth in health spending illustrates the difficulty in establishing quantitative estimates of the causal factors and their relative importance. Different conclusions can be reached, depending on the technique and the variables selected for analysis. These studies do establish that technical innovation, increased utilization due to greater need, and increased access are major components. Technology appears to be more important in the acute medical care arena, whereas utilization factors have been more important in long-term care, including nursing homes.

Dental care is an interesting special case in considering the impact of technology, relative to other factors, on cost of care. Expenditures for dental care grew at an annual rate of 13.1 percent during the 1970s, reflecting increased per capita utilization, new technical innovations such as high-speed drills, and growth in complex orthodontic and periodontal procedures, Yet inflation in dental prices contributed only 1 percent to the increase, even though the dental Consumer Price Index (CPI) increased at an annual rate of 7.6 percent; price inflation in both hospital care and physician services was much higher. This suggests that dentists absorbed a greater proportion of the increased cost of operation.

Dental services are financed in large part by out-of-pocket expenditures, although dental insurance benefits are rapidly expanding. The absence of third-party reimbursement and an ample supply of dentists to allow competition have been suggested as reasons for lower price inflation for this service. Better productivity (high-speed drills increase the number of cavities that can be filled per visit), the effectiveness of fluoridation, and other preventive dental procedures may also have contributed to constraining cost growth (13,15, 26)29).

Employee health plans are currently adding dental benefits. In some cases, dental benefits are being substituted for mental health benefits (used by fewer beneficiaries); this spreads benefit outlays over more beneficiaries (Employees Benefit Plan Review, 1981, cited in 15). older persons who depend on Medicare as their primary health insurer may thus enter the system with better dental health and practices, but also may be accustomed to greater insurance coverage, which could increase the pressure to add dental benefits or create a market for dental insurance in this population.

The benefits of improved access to health technologies for those over 65 have occurred primarily as a result of the enactment of Medicare and other Federal programs. In 1966 medical care—particularly hospitalization-became affordable to many older persons for the first time. Their initial demand for hospitalization displaced younger persons until additional capacity was built. Inpatient care has continued to grow while physician visits have remained fairly constant, partly in response to reimbursement policy.

The challenge is to find the most efficient technologies as well as the most effective. Technology-specific approaches are most useful for this task, but the results must be effectively applied to achieve the goal of improved efficiency. OTA studies have assessed the impact of specific technologies and stressed the importance of assessing both their costs and benefits. Case studies on technologies for hearing impairments and managing incontinence are being published in conjunction with this report. Additional case studies on preventive, diagnostic, and therapeutic technologies such as cervical cancer screening, X-ray procedures, and joint replacement have also been done (see 47).

Selecting appropriate technologies for older persons

Appropriate care

Consensus about the goals of care for older persons is important in considering how to contain costs and also in setting performance objectives for the care system. Geriatricians have begun to focus on what constitutes appropriate care for those over 65, which will influence the selection of technologies and the settings in which they are used. The factors that influence selection of appropriate care include the following (19,38):

- emphasis on preservation and restoration of functional ability,
- building and maintaining a support system,
- broadened approach to health assessment,
- application of appropriate medical care for acute and chronic disease,
- acceptance of the legitimacy of death, allowance of sufficient time for recovery,
- attention to care in the least restrictive environments, and
- continuity of care, including health and social services.

The geriatrician's primary concern is not economy, but appropriateness. Appropriate may, in fact, lead to economy as long as cost controls are considered simultaneously. The original goals of the Medicare program were developed to ad-

dress problems in access to services and technology for older Americans who were inadequately served by private insurance. The focus on access problems gave rise to the cost-reimbursement approach that, in part, has fueled the rise in costs of care and in some cases the inappropriate application of technology. The elderly are again unprotected against certain expenditures for needed care. Policy alternatives must seek to balance concerns for access and quality with efficiency and economy as incentives for developing health care and health financing technologies. The ways in which older consumers use services must also be considered. Appropriate utilization is a key factor in maintaining fiscal solvency and quality of care.

use *of health care technologies*

Demand for and access to health care technologies by older consumers are influenced by physical and psychosocial factors as well as economic factors. These factors are important in understanding how clients respond to care providers' recommendations. They are also important in evaluating cost-containment schemes designed to reduce overutilization of health care services by the elderly. Cost+containment strategies that shift costs too heavily to older patients can cause many of them to delay care. Long delays can result in increased disability and higher costs, but overutilization will increase costs and not improve outcomes. Providers must recognize these factors in responding to older patients and selecting technical interventions. Some of the factors are age-based and can be expected to grow in importance in future cohorts of older persons. Others may be related to experiences and opportunities that can change dramatically in future cohorts due to general trends or specific educational efforts.

The clinical nature of illness in geriatric patients is different. Some diseases occur only in the elderly and classic symptoms may be replaced by nonspecific problems such as refusal to eat, falling, incontinence, dizziness, acute confusion, and weight loss or failure to thrive. The chronic nature of diseases and the frequency of multiple disorders are also important in this age group (3).

Photo credit: Jack Delano

Older persons often do not report health problems and may delay seeking treatment for a variety of reasons.

The nature of some diseases makes their symptoms difficult to distinguish from generally accepted effects of aging. In addition, nonphysiologic factors such as the older person's perceived seriousness of symptoms, denial of illness, ahernative explanation of symptoms (e.g., just getting old), and access to treatment influence the decision to seek or delay care (2,25). Several studies have shown severe underreporting of symptoms by older persons (1,3,4,22,56).

Underdiagnosis of correctable functional (both physical and mental) and medical problems in the

elderly is supported by the recent experience of the Geriatric Assessment Units, which have found an average of three correctable problems per patient (18). Many of the conditions identified in these studies do not require sophisticated diagnostic technology, but could be identified with careful evaluation of symptoms. This burden of unreported illness supports the validity of studies reporting delayed care-seeking behavior of the elderly (3,8,41). older persons seem less likely to exaggerate their health problems than younger persons, and their complaints are more likely to be based on important underlying diseases.

The response of health professionals may reinforce the patient's denial of and failure to report functional disabilities. Health professionals may focus on specific diseases, rather than the functional status, of an older individual. Vision, hearing, and dentition problems are examples of neglected areas in primary care. The 1971-75 Health and Nutrition Examination Survey (HANES) found those 56 to 74 were more likely to receive an EKG or chest X-ray but were less likely to have a vision or hearing test than younger persons. Anecdotally, older patients complain that health professionals fail to listen and follow up on their specific functional complaints (18).

Appropriate providers

In addition to appropriate goals of care and appropriate consumer response, the types of providers may influence the cost, selection of technologies, and the efficacy and efficiency of care. The team care approach is accepted as the ideal strategy. Members of the care team that must respond to the broad spectrum of needs for the frail elderly can include physicians, nurse practitioners, physician assistants, nurses, social workers, occupational therapists, physical therapists, speech therapists, and home health aides. These providers can also be specially trained in the care of geriatric clients.

The impact of team care on the cost of care is influenced by management of the care team, the range of specific client problems, and the case-mix that exists within a particular care setting. In general, highest efficiency can be achieved by matching patient needs with the least expensive provider having the requisite skills. The actual cost saving can be eroded by administrative costs of using additional providers and, as with technologies, other provider services can be additive rather than a substitute for more expensive care.

Skills, licensure, legal requirements, and communication among team members must be carefully considered to assure maximum efficiency. Cross-training of certain geriatric providers may be one approach to providing care more efficiently. For example, if a particular client's primary needs are for social services but there is also a need to monitor or administer medication, an appropriate training program might be designed to certify some social workers to carry out this function. Nurses already provide some social service assistance while providing nursing care. Training programs to enhance these skills might improve the efficacy of intervention.

Cost-containment strategies

A number of approaches focusing on economic incentives for consumers and providers, controlling prices, assuring appropriateness of care, and limiting expansion of facilities and services have been tried or discussed for controlling health care expenditures (43,45,48,49). These include:

- direct price controls,
- changes in reimbursement strategies from cost-based to various types of prospective payment,
- utilization review programs and Professional Standards Review Organizations to review the appropriateness of care,
- health planning and certificate-of-need programs designed to control capital expenditure,

- **use of** coverage policy to limit reimbursement to effective technologies,
- increased cost-sharing and coinsurance for Federal program beneficiaries to discourage “overutilization,”
- stimulation of more competition among health care providers and insurance plans, and
- contracting and preferred-provider approaches to channel patients to lower cost providers.

Regulatory actions have been the principal approach to cost containment to date. Capping payments (e.g., Economic Stabilization Program, Section 223) has not controlled long-term cost increases. The diagnosis-related group (DRG) case-mix approach (Public Law 98-21) for prospective payment has recently been legislated for Medicare hospital reimbursement. Health planning and peer review strategies to reduce the development of excess capacity and encourage appropriate utilization may have been responsible for decreases in length of stay in hospitals but have not been sufficient to control overall expenditures. Some attempts to rationalize coverage policy based on technology assessments have not been effective, in part due to lack of central direction and data deficiencies for Medicare intermediaries (48).

A 1980 study found that cost-sharing decreases utilization of physician and hospital services for some patients (21,30), and that lack of supplemental coverage results **in cost-shifting for those with chronic conditions (21). The reduction in physician services for Medicare beneficiaries was found to occur primarily in patients without chronic impairments (22 percent) and in the *number* of persons seeking physician services. Persons with chronic conditions (78 percent), who most intensively *need*** care, were **unaffected (21). In the same study, the number of hospital admissions was lower in the group without supplemental insurance, as shown in table 21. Utilization patterns and costs of services were similar once patients entered the system. Patients with public supplementation were the highest users, possibly due to poorer health status.**

The effects of the direct cost of services on utilization and health have not been evaluated in persons over 65. Preliminary results from the Rand Health Insurance study (5) show that in younger populations free care resulted in significantly higher utilization rates, but improved health outcomes were not demonstrable for broadly defined physical and mental health measures. Two improved outcomes were identified–better blood-pressure control and improved corrected vision, suggesting that cost can deter persons from seeking needed care for some chronic conditions and that improved access to care can be beneficial for conditions with established treatment regimens. They’ also suggest that unlimited access to care can result in overuse of services without resulting in better general health. Future analyses of the data from this study will provide useful information about the use and benefit of health services for the nonelderly population studied. Extrapolation of these results to those over 65 must be

Table 21.—Average Utilization of Health Services by Elderly Medicare Beneficiaries, by Type of Supplementation, 1976

Type of supplementation	Annual physician visits: No chronic conditions	Annual physician visits: Some chronic conditions	Annual hospital days
No supplementation: Medicare only. . . .	1.66 **(100%)’**	6.72 **(100%)**	2.51 **(1 00%)**
Private supplementation	2.30 (139%)	6.23 (93%)	2.79 (111%)
Public supplementation: Medicaid	2.71 (1630/o)	8.92 (1330/0)	4.41 (1760/o)

a The numbers in parentheses indicate the average utilization rate for a group *relative* to the Utilization rate among those beneficiaries who do not supplement their Medicare coverage.
NOTE: Calculations baaed on tabulations from the 1976 Health Interview Survey.

SOURCE: Link, Long, and Settle, 1960 (21).

done with caution because health problems and utilization of services may be quite different in older persons.

Advocates of increased beneficiary cost-sharing and pro-competition approaches suggest that current reimbursement systems—government and private insurance programs that insulate the consumer from the true cost of service-promote the use of excessive health services and promote higher fees by providers (24,43,45). Use of these approaches is aimed at reducing unnecessary services and making patients more prudent shoppers for medical care. Prudent buying by health consumers remains a largely uninvestigated proposition and presumes the ability of the patient to distinguish between unnecessary and essential services (48). Some researchers have suggested that health care is not "an ordinary article of commerce" (35), suggesting that it should be treated differently in the marketplace for technical and ethical reasons. Others have suggested that there are inherent problems in enabling patients to be prudent shoppers at the point of purchase (6) because:

- consumers are poorly informed,
- consumers cannot accurately assess the care they get,
- consumers confront the system in times of crisis, and
- consumers sacrifice other things to pay for health care.

Periodic multiple-choice schemes in which selection of benefits is tied to the purchase of insurance removes the purchase decision from a crisis situation. However, appropriate selection of health insurance benefits requires a great deal of information. Also, because insurers are faced with the problem of adverse selection (those who are most frail purchase more coverage), the risk may not be spread over both high and low users.

Channeling patients to lower cost providers through preferred-provider organizations or contracting may be effective in reducing the costs of care. The restriction of freedom of choice, however, places increased responsibility on the government and insurers to ascertain that incentives to reduce visits or ancillary services do not adversely affect the quality of care.

In evaluating policy options, the total care impact of alternative strategies for meeting the projected increase in demand for health and long-term care services should be explored. In addition to operating and administrative costs for services, such other factors as capital costs and program startup costs should be considered.

Federal and State efforts to contain costs of institutional care

CONTAINING HOSPITAL COSTS

Current cost-containment activities have focused on reduction of the costs of institutional care—hospital and nursing home services. Prospective payment for hospital services is being phased in for Medicare, cost-control mechanisms have been enacted for a number of State Medicaid programs, and some States have instituted cost controls on all payers. It is hoped that because of the importance of Medicare revenues to hospitals, prospective payment for Medicare alone will reduce costs overall,[4] rather than cause a shift of cost to other individuals or other payers. Prospective payment systems become more effective in influencing the way hospitals deliver service when all sources of payment are covered. But cost-shifting will not be tolerated indefinitely by non-Medicare payers.

The Medicare prospective payment system calculates costs on a per-case basis using DRGs to adjust for differences in the type and severity of cases. The case-mix adjustment reduces incentives for avoiding more difficult and costly cases. Still, prospective payment may encourage an increase in the number of admissions, particularly in the number of those with lower care requirements. Older patients are more likely to require more intensive services and longer periods for recovery. Current DRG categories may not adequately account for differences in severity of illness. The incentive to reduce the level of services for a patient argues for careful monitoring of the quality of care.

The scope of services covered is *not* comprehensive–at least during the phase-in period. Capital costs, teaching costs, and outpatient costs are

[4]For a complete discussion, see (48) and (49).

not **covered, providing an incentive for hospitals to shift costs to these categories.** There are also incentives for shortening lengths of stay, but these may increase the use of outpatient services not covered under the system.

Prospective payment should reduce the use of ancillary services and encourage the adoption of cost-saving technology. The impact of prospective payment on medical technology will be stronger if capital costs are ultimately included, but even here the impact must be considered on a case-by-case basis **(48).**

States are also actively involved in trying to control the cost of hospital care. A publication by the Senate Special Committee on Aging provides an overview of these activities (53). Revenue caps, rate and budget review, DRGs, price competition, cavitation approaches, and channeling patients to specific providers are some of the mechanisms being tried. States with mandatory rate-setting programs did have slower growth of per capita hospital expenditures. New programs are being implemented in response to the Omnibus Reconciliation Act of **1981.** The results of these efforts on costs, quality of care, use of technology, and health care providers, if they are documented, can provide useful information to guide Federal policy.

CONTAINING LONGTERM CARE COSTS

Most approaches to slowing the growth of long-term care costs have attempted to limit access to nursing homes or substitute lower cost community-based services for more expensive nursing home care.

The number of nursing home beds available can affect utilization and cost. Licensed nursing home beds, estimated to number about 1.4 million in **1980,** are operating at very highoccupancy rates —90 percent and more. Control of the number of nursing home beds has been used to limit Medicaid nursing home expenses by some States (44).[5] Growth in numbers of beds is limited by the certificate-of-need policies in the States. For example, between 1976 and 1980, the number of beds increased by 3 percent per year (44). For the 1978-81 period, aggregate nursing home days and the population over 75 also increased by 3 percent per year. Shortages in nursing home beds in some regions impede access for some beneficiaries and may increase the days spent in hospital waiting for nursing home placement,

The feasibility of providing long-term care in noninstitutional settings has been clearly demonstrated for certain subgroups of the elderly. Evaluation of the cost and effectiveness of these programs has been difficult because of design problems. In general, savings in total system costs have not been demonstrated. Most agree that services delivered are valuable, but targeting strategies have not focused on those who are both functionally disabled and socially isolated—those who are most likely to become institutionalized (55). **The** National Channeling Demonstration Programs are focused more directly on targeting, cost containment, and case management, to test whether a managed system of long-term care can produce more favorable results than the current system (7). The research and evaluation design for these studies has also been strengthened with the goal of producing definitive results (32).

SECTION 2176 WAIVERS

Section **2176** of the Omnibus Reconciliation Act of 1981 amended the Social Security Act to permit States to more freely experiment with home and community-based care. The requirements that aggregate spending not increase and that these services directly substitute for nursing home care make it illegal to use home and community services as an add-on. The problems with targeting services to those at risk for nursing home care have been discussed above. Difficulties in predicting what expenditures might have been without the waivers wilI make evaluation of cost savings from these programs difficult. Lack of adequate measures of patient outcomes or comparison groups also will inhibit cost-effectiveness evaluation (55). Programs such as these do, however, create incentives for new efficiencies in providing community-based services that are considered more desirable than nursing home care for many reasons that are not cost related.

%x GAO report for discussion of State Medicaid Policies for Funding Nursing Home Care (44).

Cavitation approaches

Since *1972,* health maintenance organizations (HMOs) have been able to enter either reasonable-cost or risk-based contracts for both inpatient and outpatient **services for Medicare beneficiaries. The Health Care Financing Administration has established several cavitation demonstration projects for acute care services. Preliminary data indicate that better management of care and financial incentives have controlled costs and improved effectiveness (17,32). Cost savings were achieved by offsetting the increased use of ambulatory and home care services by reduced use of hospitals (12,32).** HMOS that owned and operated ambulatory clinics, home health agencies, hospitals, and nursing homes show the most marked shift away from institutional services (32,54).

A new model combining acute and long-term care services is the social/health maintenance organization (S/HMO]. The linking of acute and long-term care provides an opportunity to capture cost savings over the whole continuum of care and encourages the least intensive level of care (32). This model is currently being developed and evaluated through the Florence Heller School at Brandeis University. Fears about the budgetary effects of waivers necessary to implement this program delayed its implementation.

CONTAINING PHYSICIAN COSTS

Reducing the costs of Federal payments for physician services requires reducing utilization, paying lower fees, increasing beneficiary cost-sharing, or some combination of these. **Setting lower fee schedules for Medicare or constraining fee increases beyond the current requirement could reduce the number of physicians who accept assignment. Assignment means that the physician is reimbursed directly for 80 percent of the cost, and the beneficiary pays the 20-percent coinsurance. About 50 percent of physicians currently accept assignment. For nonassigned services, the beneficiary is responsible for the entire cost and can then be reimbursed by Medicare for 80 percent of allowable charges (which are usually significantly lower than the billed charges). Hence, for nonassigned services, physicians can shift the difference between allowed and billed charges to the consumer.**

In addition, more private cost-sharing for existing benefits under Medicare Part B, which covers physician services, has been proposed by the current Administration. Higher premiums to covera higher percentage of operating costs (48,52) as well as coinsurance rates and deductibles could also augment revenues. Higher premium costs would have less effect on reducing service utilization but would shift costs to beneficiaries and distribute them over the entire Medicare population (48).

[6]Increases cannot exceed the Medicare Economic Index.

Technology and coordination of Federal health programs

The potential for cost-shifting between the programs and for noncomplementary policies and incentives can affect both the cost of and access to appropriate technologies and services. For example, new computer and information technologies can facilitate coordination and improve the cost effectiveness of Federal health programs. A number of Federal programs influence the ability of those over **65** to purchase services and technology. These include cash and in-kind service benefits that are age-based entitlements and those that serve specific groups, such as the socially and economically disadvantaged, or veterans, including those over 65. From the standpoint of access to health and long-term care services and technologies, Federal and federally assisted programs

that influence the quality and distribution of services and technologies as well as private insurance benefits are also important.

Federal health programs

The following major programs are cited to illustrate the complex interaction of Federal programs in affecting access to health services and technologies.

INCOME SUPPORT

Improved socioeconomic status, reflected in higher general standards of living, and better access to health care have been associated with improved health and functional status (23,42). While Medicare provides an important subsidy for health care, the elderly still have substantial out-of-pocket expenses for health services and technology. Income support programs such as Social Security and Supplemental Security Income may, therefore, affect health status and health program costs.

IN-KIND HEALTH BENEFITS

Medicare provides acute hospital and skilled nursing care benefits (Part A) to most persons over 65; supplementary medical insurance (Part B) for physician and outpatient services is an elective option. Medicaid, in 52 federally assisted, State-run programs, supplements this coverage for the poor, and in some States for those who are needy due to increased health care expenses. Medicaid also provides a "safety net" for those who require extended nursing home care.

SOCIAL SERVICE PROGRAMS

Social and supportive services are provided through Social Service Block Grants and Title III of the Older Americans Act. Services vary from State to State but can include homemaker, chore services, transportation information and referral, congregate meals, and home-delivered meals.

VETERANS ADMINISTRATION (VA) PROGRAMS

The VA provides comprehensive benefits to veterans with service-connected disability and to all veterans over 65 on the basis of need and availability of resources (public Law 91-500). Currently, many veterans choose to use private services and be reimbursed through Medicare. The number of veterans over 65 who are eligible for both VA and Medicare benefits is expected to triple (from 3.5 million to 9 million) by 1990. Applications for VA health benefits have increased significantly (the rate of increase in the number of applications per 1,000 veterans was over 30 percent during fiscal year 1983) (16). Some of this increase may be due to recent changes in the Medicare program. More specific examination of the rates for veterans over 65 is needed.

HEALTH SERVICES AND HEALTH RESOURCE PROGRAMS

Health services and resource programs provide Federal support to the medically underserved and aid in manpower development, health planning, and community and preventive health services. Activities under these programs can affect the availability of services and technologies through health planning activities and health care expenditures. These programs interact with State-specific certificate-of-need programs that regulate the supply of certain technologies and services (e.g., institution-based home care, dialysis, therapeutic and diagnostic equipment), and particularly the supply of hospital and nursing home beds.

Actions taken in any of these programs can produce unintended effects in others. Cost-shifting, changes in the number and characteristics of persons seeking services, and impaired access to services and technologies, either financially or geographically, can occur. Lack of adequate data on use and the factors that affect it often hinders efforts to evaluate potential effects of policy changes.

Hospital backup

The problems in delivery of long-term care that result in a patchwork of services have been discussed in chapter 7. The coordination between acute and long-term care adds further complexity, as does the interaction between public and private health and long-term care financing alternatives (discussed later in this chapter). Cost containment may create additional stresses that can result in cost shifting and, without adequate

safeguards, affect the quality of care. The problem of the backup of patients in hospitals is an example.

Certain policies have been effective in reducing the length of hospital stays. Utilization review quickly identifies those patients who no longer need hospital care. Because out-placement of these patients can be difficult, the Medicare provision for nursing home care—instituted to contain costs—is underutilized because beds are not available.[7] The result is a large number of hospital days that are not necessary for medical reasons. The cost of these "administratively necessary days" (ANDs) in 1980 ($3.7 billion) was slightly greater than the amount spent on community-based care in that year, as shown in table 22.

The Medicare nursing home benefit is seldom used, Medicare pays for only about 2 percent of nursing home days of the elderly, and an average stay is 28 days compared to the allowed 100 days. Medicaid (40 percent) and private payments (58 percent) are the major sources of nursing home revenues (50). Higher quality standards, retrospective denial of claims, and difficult regulations related to accounting for allowable costs make Medicare participation less attractive for the limited benefits. The availability of Medicare nursing home benefits depends on: 1) existence of a skilled-level nursing facility (SNF)—a function in large part of Medicaid policy; 2) Medicare participation by the SNF—a function of the similarity of Medicaid and Medicare rules, certification, types of patients, and reimbursement policies; and 3) interest on the part of nursing homes in participating.

Until the enactment of prospective, case-based payment, delays in nursing home placement were problems for the Federal budget, rather than for providers and patients. Nursing home users were operating at 95-percent occupancy rates and hospitals at 75-percent occupancy rates; because Medicare funding was seldom terminated, patients simply received hospital care at hospital costs after their medical condition was stabilized. New incentives have been created for hospitals to rapidly discharge patients. But no incentives have been created to encourage nursing homes to accept Medicare patients. The availability of beds for these patients is a function of the relative attractiveness of Medicare and the State Medicaid program policies, as well as care requirement for individual patients. The short supply

[7] Nursing homes can selectively admit patients based on care needs and reimbursement status and thus still maintain high bed-occupancy rates.

Table 22.—Formal Long-Term Care Expenditures in Hospital Care, Nursing Home Care, and Community. Based Care, by Source of Funds, 1980

	Hospital patients awaiting nursing home placement	Nursing home	Community based
Federal:			
Medicare	1,568	455	1,042
Federal Medicaid	419	5,694	85
Federal Title XX	—	—	809
AOA		—	724
Veterans Administration	1,562	359	723
Other Federal	104	21	135
State and Local:			
State Medicaid	354	4,788	73
State Title XX	—	—	420
Other State	198	—	211
Local government	—	—	17
Private:			
Insurance	902	129	740
Business/philanthropy	29	129	162
Consumers	209	8,869	1,377
Total	5,345	20,444	6,518

SOURCE: U.S. Department of Health and Human Services, Office of the Inspector General, *Long-Term Care: Service Delivery Assessment, Report to the Secretary* (2 vols.) unpublished, N. Zimlich, December 1981. For detailed explanation of estimates see Volume II: Technical Report.

of nursing home beds makes access highly variable and difficult in most areas (15).

Current provisions of DRGs account for ANDs in that they have been factored into the base rates. No additional reimbursement will be made for patients waiting to be placed in nursing homes. Many of these patients are poor and require a great deal of care. The care requirements make them poor candidates for home care and because they are poor, they probably cannot afford private care. Careful review of appropriateness of out-placement will be required.

Information technology for coordination of health programs

The rapid advance of information technologies offers opportunities for better coordination of programs through more effective data collection and dissemination of information to consumers, providers, administrators, and policymakers. While information is only one element in the coordination process, it is essential in monitoring its impact and formulating policy. Chapter 6 reviewed the uses of innovative information technologies to improve patients' ability to participate in their own care through education and patient-held health information. Educational technologies can also be applied to improve consuming behavior through helping patients choose between service and coverage alternatives.

Artificial intelligence and computerasisted learning strategies can assist providers in coping with the complex problems of disease and functional disability, and can also be applied to promote efficiency in health care programs and improve strategic planning activities, Technologies such as the "smart card" (a magnetic information storage card) provide new opportunities to capture patient-based data on the utilization of services and their cost, Artificial intelligence can assist in analyzing information for complex resource-allocation deisions. Electronic information-sharing can improve the ability of multiple providers to act in concert to address individual and community needs. State-of-the-art data collection and analytical tools can enhance the effectiveness of utilization review for both quality of care and cost control.

Confidentiality and protection against abuse must be carefully considered as new applications are developed. The design of effective administrative mechanisms that can use information effectively also requires further development before the maximum benefit of these new technologies can be achieved.

Financing alternatives for health and long-term care

Medicare is the major form of health insurance for those over 65, supplemented by private '(medigap" insurance. Gaps in Medicare coverage for the elderly exist in preventive services, dental care, and particularly long-term care. Many of the elderly are not poor and tend to want to save for emergencies (27). The need, resources, and desire for protection imply a market for mechanisms that would provide financial protection for these older persons. Protection against catastrophic long-term care expenses has been discussed most often, but some attention to the structure of medigap insurance is underway and deserves increased attention as a means of filling benefit gaps and reducing medical care cost-inflation (28).

Among the mechanisms proposed for accumulating resources for long-term care are a publicly supported national program, private insurance, and subsidized personal savings programs (e.g., tax-deferred savings).

A compulsory national long-term care insurance program would be one way of providing comprehensive universal coverage. This approach avoids the problems of participation by only those who are at greatest risk of needing care (adverse selection). Fear of increasing inflation of health and

long-term care costs and concomitantly increasing government expenditures has hindered full consideration of this approach.

The need for a compulsory national insurance program is partly based on the failure of the private insurance market to provide individual coverage (33). Reasons that have been given for lack of interest of private insurers include:

- cost of coverage relative to income of target population;
- lack of understanding by elderly consumers of their risk and insurance needs (many think they are already protected);
- existence of a public "safety-net" for those who are poor or become poor;
- difficulty in predicting the cost of benefits, including lack of reliable data on which to base estimates of utilization and costs;
- difficulty in distinguishing between skilled nursing, intermediate care, and custodial care; and
- regulatory barriers.

The barriers fall into two major categories—technical barriers to the design of an insurance product and barriers to marketing this product. The technical barriers in designing and administering benefits are similar to the problems that face public programs that pay for long-term care. Public programs have not yet been able to contain the growth of expenditures.

The problems of cost containment, price inflation, overutilization of benefits, and the inability to predict length of care and appropriate level of care are major concerns for private insurers. In addition, private insurers provide benefits that are marketable and must attract insurers who represent an appropriate balance between users and nonusers. Most existing insurance policies for long-term care are focused on nursing home care and provide only limited expansion of Medicare benefits. Some have very limited home care benefits and only a few cover levels of care below skilled nursing.

One approach suggests creating a policy with an idemnity benefit (set-dollar reimbursement) of $37 per day for up to 3 years of nursing home care (27) to be marketed to those over 65. The premiums for the policy were calculated to be about $450 to $550 per year. However, insurance industry estimates of premium costs have been substantially higher. Although these premium costs would strain the health care budgets of many when added to current out-of -pocket spending, some older consumers might consider the potential benefits to be worth the extra cost. For this group it may be an attractive alternative to spending down for Medicaid eligibility. Also, premium costs could be reduced substantially if consumers purchased coverage before age 65.

Benefits of additional private coverage for long-term care could accrue to both individuals and government. Such coverage could reduce the burden on Medicaid because a substantial portion of Medicaid beneficiaries were not initially poor; spending down and transferring assets have made them eligible. Tighter Medicaid restrictions on asset transfers may stimulate increased demand for private insurance protection. The existence of a personal-protection alternative could also alleviate some of the ethical and political problems in increasing the stringency of spending down and greater emphasis on tapping of family resources before becoming eligible for Medicaid benefits.

Insurance regulation varies from State to State and can therefore act as a barrier to the sale of long-term care insurance. The variability in State programs makes it difficult for national companies to design and administer long-term care insurance products.

Incentives for personal savings to defray the cost of future care have also been suggested. Tax-deferred savings programs for this purpose could be offered along with current tax-deferred savings programs for retirement income; the number of persons who could afford such an investment might be relatively limited, although many have purchased individual retirement accounts. The budgetary impact for such a program would have to be carefully analyzed.

Three major kinds of medigap insurance policies are currently available: 1) individual policies that pay deductible and coinsurance for Medicare-covered services at Medicare rates; 2) individual

policies that pay deductibles and coinsurance based on what the insurance company determines as reasonable charges (usually higher reimbursement); and 3) group insurance' policies, usually as a continuation of employee benefit plans after retirement, that provide major medical benefits as well as deductibles and coinsurance. The premium-to-benefit ratios are reasonable in most cases and relatively fair, but may duplicate Medicare coverage or each other and provide little additional protection. Since the benefits are usually determined by Medicare policy, they do not make coverage a great deal more comprehensive. Voluntary savings programs would have to provide tax savings in addition to those provided by current programs. Rewards for prudence such as sheltering other assets from Medicaid spend-down requirements might be included to enhance the attractiveness of such programs.

A major barrier to the development of private financing mechanisms is that elderly consumers do not understand their health care risks and/or their insurance coverage (20,27). Many think they are adequately protected through Medicare and medigap insurance. The strong preference for first-dollar coverage for acute care and the high cost of such coverage may also limit the amount of money available for additional insurance or savings (27). Although the development of alternatives to government financing seems desirable in improving access to care, significant changes in attitudes and incentives of both insurers and consumers will be required for these mechanisms to become viable.

*Lower group rates are expected from such insurance plans, as exemplified by group health insurance rates for persons under 65, because of lower administrative costs and better risk spreading.

Findings and conclusions

Health care spending has been growing and will continue to grow under present policies, but the growth of the over-65 population-particularly the over-i'5 segment—will increase demand for acute and long-term care services. The growth of this population group is *not* the main reason for the rapid escalation in health care costs, Increased costs due to inflation (even surpassing general inflation) and intensification of services have been much more significant factors; increasing costs have led to efforts to contain spending that have far-reaching implications for older persons. While most individuals over 65 can maintain functional independence, many require health care for chronic conditions that increase in prevalence with age. Spending for health services represents a major problem for the Federal Government, individuals, and families.

Medicare currently provides an important health care subsidy for those over 65 but is by no means comprehensive—many necessary services that affect their health and functional status, such as dental services, eyeglasses, and hearing aids are not reimbursable. A growing problem is the cost of long-term care for those who are disabled. Eventually, many older persons come to depend on public means-tested programs for long-term care after their personal resources are exhausted. Private financing mechanisms, including medigap insurance and private insurance for long-term care, are not sufficient to provide adequate supplemental protection.

Demand for health care by older persons is influenced by physical and psychosocial factors as well as economic factors. The increased use of services by some of those in this age group may result from an increased burden of illness. The remarkable decrease in mortality in the over-65 age group has not been accompanied by a similar decrease in morbidity. Studies also indicate that older persons tend to underreport symptoms and may be more likely to delay seeking care. They attribute symptoms to "just getting older." Health professionals may reinforce this behavior by not dealing adequately with functional disabilities. Recent experience in Geriatric Assessment Units found an average of thrwe correctable problems per patient; many of these problems could

have been identified through a careful health history without sophisticated diagnostic tests.

Cost- containment efforts to date have not been effective in controlling overall health spending. Most approaches have focused on hospital care and rate-setting. The response has been increased utilization or shifting of services to ambulatory settings or shifting costs from Federal programs to other insurers and consumers. Increasing direct consumer costs to reduce overutilization has been shown to reduce the number of persons seeking care, but not to change use patterns after a diagnosis has been made. Cavitation approaches have been most successful in encouraging the substitution of lower cost services for expensive hospital care. Recent experiments are extending the cavitation concept to include supportive social services.

The coordination of services and benefits between Medicare and the State Medicaid programs, as well as among other Federal, State, and local programs that influence health care, remains a problem in access to care for the elderly. Poor coordination may even increase costs because the most appropriate services are not provided. Better coordination can increase utilization and overall costs, but can also improve the quality of care. The incremental costs and benefits of each action must be evaluated.

The hospital backup problem described in this chapter is an example of conflicting program requirements and, in certain geographic areas, lack of skilled-nursing beds leading to increased costs. Shifting financial incentives through prospective payment under Medicare could affect quality of care for patients in hospitals awaiting placement in long-term care institutions. Premature discharge may result in multiple admissions and shifting of costs to home care, thereby increasing overall costs for these patients as they are cycled back and forth between inadequate community settings and the hospital.

O ther reports have addressed questions related to changes in eligibility, benefits, and financing mechanisms for the existing Medicare program to cover increasing costs. Recent Congressional Budget Office reports (45,46) explore options to **increase revenues or decrease outlays as well as potential schemes to tie deductibles to income.**

Research priorities

Health services research has the potential to provide valuable information for improving the cost effectiveness of the delivery of health services. There are significant gaps in knowledge at present. Some efforts are constrained by technical problems; others are limited by the resources that have been allocated for this purpose. Many of the questions have not been adequately studied in any age group. In other areas, persons over 65 have been excluded from the study population (e.g., The Rand Health Insurance Study). Results from the community-care demonstration activities and the 2176 waiver programs may provide useful information for directing Federal policy.

Additional information is needed in the following areas to direct Federal policy on containing health care costs and improving health care and supportive services for older persons:

- factors affecting the use of health and social services by older persons,
- the effect of cost-sharing on the use of services by and the health status of older persons,
- evaluation of economic incentives on provider-prescribing behavior,
- effectiveness and cost effectiveness of alternative strategies for the care of chronic disease and functional impairments,
- evaluation of alternative strategies for coordinating services and benefits,
- cost effectiveness of alternative quality-assurance mechanisms,
- development of methods to effectively educate older consumers in the prudent use of health services,
- development of improved health-outcome measures for older persons,
- exploration of methods to apply capitation-payment approaches to multi-provider systems,
- development of better assessment tools to identify health and social service needs, and
- refinement of case-mix measures based on severity of illness for patients with multiple diagnoses.

Congressional issues and options

ISSUE 1: Should Congress strengthen quality assurance mechanisms for health care services because of the potentially adverse effects of cost containment?

Options:

1.1 Congress could strengthen the requirements for review of quality care.

1.2 *Congress could establish a* **monitoring system to** *identify adverse patient outcomes that maybe attributable to reductions in level of care and mandate the Prospective Payment Commission to evaluate the implications.*

1.3 *Congress could require refinement of the DRGs according to age group (as a proxy measure for severity of illness) or other surrogate measures for* **severity of illness or** *the* **presence of multiple** *diagnoses.*

1.4 *Congress could mandate making information on care and* **its** *consequences more accessible to patients, including requiring a patient ombudsman in hospitals.*

1.5 *Congress could* **require that** *HCFA have applications for Professional Review Organizations reviewed by outside experts* **to assure adequate** *plans for monitoring quality of care.*

While incentives to reduce the number and types of services may be effective in encouraging more prudent and economical plans of care, these incentives may also lead to skimping for heavy-care patients. Older patients are more likely to require more intensive services and longer periods for recovery. Current reimbursement policy recognizes this in two ways: 1) it provides higher rates of reimbursement for patients over 70, and 2) provides for quality of care reviews through Professional Review Organizations (PROS). However, because analyses were performed on the total hospital population, significant differences between age groupings may have been obscured. Since both the payment system and quality assurance mechanisms are not yet fully implemented, their effectiveness cannot be evaluated. But the proposed regulations and administrative structures should be evaluated for adequate quality-assurance safeguards. The data that will be necessary to guide future policy decisions must also be considered.

Options 1.1 and 1.3 imply action before the current system is implemented. The age break of 70 years was identified empirically. Option 1.2 would provide a system to identify problems if they occur. Option 1.4 would enhance the patient's ability to avoid situations that could place him in jeopardy. Option 1.5 would provide additional assurance that quality of care as well as cost of care considerations are adequately represented in PRO functions. All of the proposed options would increase the cost of quality-assurance programs, but savings could also accrue from the prevention of complications.

ISSUE 2: Should Congress act to increase coordination of Federal health and social service programs and to increase liaison with State-run programs to avoid unintended interpr0gram cost shifting?

Options:

2.1 Congress could establish additional Federal-level coordinating mechanisms.

2.2 *Congress could consolidate Federal* **agency** *and/or program responsibilities.*

2.3 *Congress could delegate responsibility for coordination of Federal programs to States and* localities.

2.4 **Congress** *could establish* **a client-based** *information system so that total per capita spending can be monitored on* **a representative sample** *of beneficiaries.*

2.5 *Congress could encourage the dissemination of* **information to** individuals *and* **strengthen** *coordination through enhanced consumer decisionmaking.*

2.6 **Congress** *could provide increased support for existing coordination efforts through the Administration on Aging, the* **Area** *Agencies* on *Aging, and State-run health programs.*

Current efforts aimed at coordination have not eliminated conflicting program requirements and regulations. The financial impacts of lack of coordination are largely unknown, but cost shifting

between Federal programs and between Federal and State programs is known to occur. Enhanced coordination could occur at the Federal level (options 2.1 and 2.2), at the State and local level (option 2.3), or at the individual patient level (option 2.5). Better information on the use and costs of services provided by all health and social services (option 2.4) could lead to better planning, but would introduce higher costs of data collection and could raise problems related to confidentiality of information. Increased activity through existing structures (option 2.6) could be effective but more attention to linkages in certain areas (e.g., housing programs and Veterans Administration programs) seems appropriate. Better coordination could reduce costs through the provision of more appropriate services but could also increase demand for services overall and thereby increase total costs.

ISSUE 3: Should Congress stimulate coverage for preventive services, long-term care, and function-enhancing technologies as a way of substituting lower cost services?

Options:

3.1 Congress could increase benefits for prevention and treatment of chronic disorders in addition to current acute care benefits.

3.2 Congress could increase benefits for prevention and treatment of chronic conditions and limit program liability for acute care services.

3.3 Congress could establish additional optional coverage through social insurance.

3.4 Congress could encourage additional optional coverage by creating incentives for private insurance coverage for these services.

3.5 Congress could provide incentives for personal accumulation of resources for additional benefits (e.g., tax-deferred savings).

The addition of benefits to the Medicare program (option 3.1) or restructuring benefits (option 3.2) could lead to a less functionally dependent older population. Little evidence exists on whether this would lead to cost savings. In the short run, costs would likely increase. The provision of other types of optional coverage (options 3.3 and 3.4) is another approach to providing additional benefits. Technical, marketing, and regulatory barriers have inhibited private insurers' development of appropriate mechanisms to distribute risks. Social insurance schemes would likely require additional Federal resources. Personal accumulation schemes (e.g., tax-deferred savings plans, home-equity conversion) have been proposed by some (option 3.5), but these would be most effective for moderate and upper income persons. Alternative methods for the poor and near-poor would therefore be required if equity of access is to be maintained.

ISSUE 4: Should Congress act to alleviate the number of patients in hospitals waiting for discharge to lower levels of care?

Options:

4. I Congress could make Medicare and Federal @delines more consistent to increase the number of beds available for recuperation of Medicare patients.

4.2 Congress could relax legislative restrictions for designation of swing beds (classifying unused hospital beds as skilled-nursing beds) in hospitals.

4.3 Congress could exempt hospitals from certificate-of-need requirements for adding home health services.

4.4 Congress could encourage more active discharge-planning efforts.

4.5 Congress could encourage the building of additional skilled-nursing beds in shortage areas.

Making more Medicare nursing home beds available (options 4.1, 4.2, and 4.5) would increase the use of this benefit, thereby increasing program costs. Some savings from a reduction of hospital payments could occur in those cases where extended lengths of stay produce "outlier payments" (payments in addition to DRG reimbursement for extremely long stays). Also, patients requiring intense community services because of lack of informal support might be cared for more economically. Better access to home and community services (options 4.3 and 4.4) could reduce pressure and outlier costs for hospitals but would increase the cost of home care benefits.

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