

Twenty years of Medicare and Medicaid: Covered populations, use of benefits, and program expenditures

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Introduction

For the 20th anniversary of Medicare and Medicaid, this article provides a review of program data, focusing on the experience of the beneficiaries and the use and costs of services. Clearly, the 20th anniversary occurs at a time when important issues are being raised about the most basic features of these programs—the eligible populations, the covered services, and the financing—and when marked changes are taking place in the health care system. Thus, no useful review of Medicare and Medicaid today can also fail to note the major issues that confront the programs and the options that are being considered for new directions in the future.

There are concerns about how well the programs provide access to care for the most needy and vulnerable populations of the Nation, the equitable distribution of services, the appropriateness of the covered services, and the effectiveness and efficiency of the system in which the services are delivered and financed. Clearly, there are important decisions ahead, as the public deliberates which, if any, provisions of the Medicare and Medicaid laws (based on the needs and expediency of an earlier era) are unresponsive to present needs and goals, and as policy officials examine the strengths and weaknesses of the various options being considered to alter the programs.

The information presented in this article provides a basis for considering some of these options for the future. We review the 20-year experience of the Medicare and Medicaid programs, examining the subsets of the populations who are entitled to participate, trends in the use of services, and expenditures for those services.

A similar accounting was presented a decade ago, on the 10th anniversary of the Medicare program

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(Gornick, 1976). In the earlier article, a 10-year review of Medicare program data was given, examining the experience of the beneficiaries and their use and costs of services. The conclusion from that review was that Medicare had succeeded in accomplishing its primary goal of paying the major portion of large hospital and medical bills. Implementation of Medicare did not result in unbounded demand on the part of the beneficiaries for covered services; rather, major budgetary concerns arose from the rapid and persistent increase each year in the price of medical care services.

In the early years of Medicare and Medicaid, there were relatively few data bases, statistical reports, and research studies to draw on for program analysis. In more recent years, a wealth of statistical information and studies have become available. These include the article on national health expenditures published in the *Health Care Financing Review* each year (Gibson et al., 1984); *Medicare and Medicaid Data Book* (Sawyer et al., 1983); *Short-Term Evaluation of Medicaid: Selected Issues* (Rymer, Burwell, and Madigan, 1984); reports from the National Medical Care and Expenditure Survey (National Center for Health Statistics and National Center for Health Services Research, 1977) and the National Medical Care Utilization and Expenditure Survey (National Center for Health Statistics and Health Care Financing Administration, 1980); data from the National Center for Health Statistics, the U.S. Bureau of the Census, and the Social Security Administration; hundreds of published articles analyzing many aspects of the programs; and surveys and reports from other governmental agencies and from the private sector on the sociodemographic characteristics of the populations covered by Medicare and Medicaid. In general, Medicare program data are more complete than those available for the Medicaid program. This fact is reflected in numerous indepth studies of the Medicare program experience that cannot be duplicated for Medicaid.

Because the most fundamental feature of the Medicare and Medicaid programs—the eligible

populations—is being debated, it seems appropriate to concentrate not only on the Medicare and Medicaid program experience but also on certain aspects of the Social Security Administration's beneficiary population. Knowledge of the characteristics of those beneficiaries, and the basic links with the social security old age, disability, and social welfare programs, is necessary to understand the present composition and characteristics of those enrolled in Medicare and Medicaid. Of the more than 50 million people covered by the Medicare and Medicaid programs, only those Medicare enrollees entitled solely because of end-stage renal disease, about 30,000 persons, are not presently beneficiaries (or in related categories) of the social insurance and social welfare systems.

Despite the wealth of information that has been generated, there are inevitable data limitations (including time lags, inaccuracies, and lack of certain details) that restrict the completeness and depth of any program accounting. In this article, we use a few sets of data from among the many available to highlight what has been learned about the enrolled populations, their use of services, and program expenditures.

First we present an overview of the Medicare and Medicaid programs and a summary of current program and health sector issues of concern. Then we discuss the covered populations, the use of services, and program expenditures. Finally, we offer some broad conclusions on the 20-year experience of the two programs and future directions.

Overview of Medicare

A recurring issue in the long legislative debate that preceded the passage of the Medicare law was the lack of hospital insurance among the aged. A survey of the Nation in 1963, just before Medicare, showed that about three-fourths of adults under age 65 had hospital insurance; only 56 percent of persons 65 years of age or over had hospital insurance (Andersen, Lion, and Anderson, 1976). Yet the aged population was identified as being most at risk, with the highest rate of illness and the lowest income. Medicare was enacted into law on July 30, 1965, as Title XVIII of the Social Security Act. The program went into effect on July 1, 1966, to provide health insurance protection for the aged. The primary goal of the program was to increase access to health care services and to reduce the financial burden of the high costs of medical care. The 1972 Social Security Amendments expanded Medicare to provide coverage, beginning July 1, 1973, to two additional high-risk groups—disabled persons receiving cash benefits for 24 months under the social security program and persons suffering from end-stage renal disease.

Medicare was designed as a national, federally administered program with uniform eligibility and benefits and was tied to the Federal social insurance system. It has two parts: hospital insurance (HI), known as Part A, and supplementary medical

insurance (SMI), known as Part B. The HI program was specifically designed to provide protection for acute-care needs, with benefits structured around episodes of illness. HI covers 90 days of inpatient hospital care in a benefit period, which begins the first day of hospitalization and ends when the beneficiary has not been an inpatient in a hospital or skilled nursing facility (SNF) for 60 continuous days. There is no limit to the number of benefit periods an individual may use. The program also provides a one-time (life-time) reserve of 60 days to use if a beneficiary exhausts the 90 inpatient hospital days available in a benefit period. In addition to inpatient hospital care, the hospital insurance program covers up to 100 post-hospital days in an SNF if the beneficiary is certified to require such care. The program also covers an unlimited number of home health agency (HHA) visits if the beneficiary is confined to the home and needs such services.

About 97 percent of the aged covered by HI enroll in the SMI program, which requires a monthly premium. SMI was designed to complement, in many respects, the HI program; it provides payments for physicians and related services and supplies ordered by the physician. It also covers outpatient services, rural health clinic visits, and home health visits for persons without Part A. The monthly premium was \$3.00 in 1967 and \$15.50 in 1985. Under "buy-in" agreements, most State Medicaid programs pay the premiums for Medicaid enrollees who qualify to participate in SMI.

Effective November 1, 1983, hospice benefits became available for persons who are terminally ill. The benefit has a sunset provision, expiring on October 1, 1986, unless extended by legislation. Enrollees can elect the hospice benefit for two 90-day periods and one 30-day period.

Drugs on an outpatient basis, dental care, routine eye examinations, and preventive services are not covered by Medicare. Long-term institutional services are not covered either.

To hold down program costs and to deter overutilization, the Medicare program, from the beginning, required beneficiary cost sharing. Under HI, the patient is required to pay an inpatient hospital deductible in each benefit period. The deductible approximates the cost of 1 day of hospital care. Coinsurance based on the inpatient hospital deductible is required for the 61st-90th day of inpatient hospital care (always equal to one-fourth of the deductible), for the 21st-100th day of SNF care (one-eighth of the deductible), and for the 60 lifetime reserve days for inpatient hospital care (one-half of the deductible). The patient is also liable for the cost (or replacement) of the first three pints of blood. In 1967, the inpatient hospital deductible was \$40; in 1985, \$400. Nearly 70 percent of Medicare enrollees have private "Medigap" policies, which primarily cover some or all of the deductibles and coinsurance under Medicare. About 15 percent of the aged and 21 percent of the disabled have Medicaid coverage also, and Medicaid usually

assumes responsibility for the cost-sharing under Medicare.

Under SMI, in addition to paying a monthly premium, the beneficiary must meet a deductible (currently \$75) each year. On each claim for payment, physicians can accept or reject assignment.

Acceptance of assignment means that the physician agrees to accept as full payment the amount Medicare allows for the service. On assigned claims, the program reimburses 80 percent of allowed charges directly to the physician. Beneficiaries are liable for the remaining 20 percent (coinsurance) of allowed charges. On unassigned claims, the beneficiary is also liable for the difference between the physician's charge and the allowed charge; Medigap policies generally do not cover charges above Medicare's allowed charge.

Medicare has operated primarily on a fee-for-service basis for physicians and related services and on a retrospective cost-basis for hospital services. Claims are processed by fiscal agents, contracted by the Medicare program to review and pay the bills. Enrollees can also join health maintenance organizations (HMO's) and similar forms of prepaid care. Special reimbursement provisions apply to these organizations. The Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 included major revisions to the Medicare law to encourage the growth in the number of HMO's and other comprehensive medical plans enrolling Medicare beneficiaries.

Through fiscal year 1983, hospitals were paid under a retrospective cost-based system whereby hospitals were reimbursed for any reasonable costs incurred in the provision of covered care to Medicare patients. Beginning October 1, 1983, payment rates were prospectively determined on a case basis. The Medicare hospital prospective payment system (PPS) uses diagnosis-related groups (DRG's) to classify cases for payment.

Medicare benefits and administrative expenses are paid from two separate trust funds. The HI trust fund is financed primarily through the employee and employer payroll tax on current earnings from employment covered under the Social Security Act. The taxes paid by current workers are used to pay for services received by current Medicare beneficiaries. The SMI trust fund is financed through premiums paid by, or on behalf of, persons enrolled in the program and by the Federal Government from general revenues.

Overview of Medicaid

Medicaid had its beginning in earlier medical assistance programs. The primary goal in the design of the program was to provide access to health care services for certain low-income persons. Medicaid was enacted into law on July 30, 1965, as Title XIX of the Social Security Act, and became part of the existing Federal-State welfare structure that assisted the poor.

Medicaid, supported by Federal grants and administered by the States, is limited to specific

groups of low-income individuals and families. The program was designed to cover those groups or categories of people who are eligible to receive cash payments under one of the existing welfare programs established under the Social Security Act; that is, Title IV-A, the program of Aid to Families with Dependent Children (AFDC), or Title XVI, the Supplemental Security Income (SSI) program for the aged, blind, and disabled. This federally administered cash program was established by Congress in 1972, with payments beginning in January 1974. SSI was designed to replace the Federal-State programs of Old-Age Assistance (OAA), Aid to the Blind (AB), and Aid to the Permanently and Totally Disabled (APTD). In most cases, receipt of a welfare payment under one of these programs means automatic eligibility for Medicaid. In addition, States may provide Medicaid to the "medically needy," that is, people who are not recipients of cash assistance, but who fit into one of the categories of people covered by the cash assistance programs and whose income and assets fall within the medically needy standards or who spend-down, because of their medical bills, to the medically needy standards. Under general Federal guidelines, States set income and assets standards for cash assistance and Medicaid eligibility. Because there is considerable variation in the coverage of optional groups and in income standards across Medicaid jurisdictions, the degree to which individual programs cover the poverty population varies considerably.

Title XIX of the Social Security Act requires that every State Medicaid program offer certain basic services: hospital inpatient and outpatient care, laboratory and X-ray services, skilled nursing facility care for individuals 21 years of age or over, home health care for individuals eligible for SNF services, physicians' services, family planning, rural health clinic services, and early and periodic screening, diagnosis, and treatment for individuals under 21 years of age. In addition, States may provide a number of other services if they elect to do so, including drugs, eyeglasses, intermediate care facility services, inpatient psychiatric care for the aged and persons under 21 years of age, physical therapy, and dental care. States determine the scope of services offered, e.g., they may limit the days of hospital care or the number of physician visits covered.

Medicaid operates primarily as a vendor payment program. Payments are made directly to providers of service for care rendered to eligible individuals. Methods for reimbursing physicians and hospitals vary widely among States, but providers must accept the Medicaid reimbursement level as payment in full. Medicaid physician reimbursement is generally more stringent than Medicare. In long-term care facilities, individuals are required to turn over income in excess of their personal needs and maintenance needs of their spouses to help pay for their care. States may require cost-sharing by Medicaid recipients, but they may not require the categorically eligible to share costs for mandatory services. As noted earlier, most State Medicaid programs have buy-in agreements with

Medicare. Under these agreements, Medicaid assumes responsibility for the Medicare cost-sharing obligation of persons covered under both programs.

Medicaid is financed jointly with State and Federal funds. Federal financial participation varies with States' per capita income and currently ranges from 50 percent to 77.55 percent of program payments. Administration and Medicaid Management Information System costs are matched at other uniform rates.

States participate in the Medicaid program at their option. All States except Arizona currently have Medicaid programs. Arizona has a demonstration project of capitated health delivery under way, which is similar (excluding coverage of long-term care services) in eligibility and benefits to the Medicaid program. The District of Columbia, Puerto Rico, Guam, the Northern Marianas, and the Virgin Islands also provide Medicaid coverage. States administer their Medicaid programs within broad Federal requirements and guidelines. These requirements allow States considerable discretion in determining not only eligibility, but covered benefits and provider payment mechanisms. Some States also include in their Medicaid program persons known as "State-only" enrollees, who do not meet Federal requirements and hence do not qualify for Federal matching funds. As a result of State options and policy decisions, the characteristics of Medicaid programs vary considerably from State to State.

The Omnibus Budget Reconciliation Act (OBRA) of 1981 made major revisions to the Medicaid law. States were given substantially more flexibility in the administration of their programs as well as additional options, including the introduction of home and community-based service programs as alternatives to institutionalization.

Current program issues

With the passage of the Medicare and Medicaid programs, public concern focused on anticipated demand for health care services from those who would be newly entitled to publicly funded services. There was an absence of concern that price or unit cost might increase significantly (Klarman, 1966). It is near legendary now that it was costs, rather than patient demand (as measured by the number of physician office visits or hospital days of care), that spiraled the first year these programs were implemented and for many years that followed.

Several different factors in the health care system have been identified with the continuing increase in costs: the rise in wages and price levels in the health care industry; increases in the number of certain customary services such as laboratory tests; the development of new and costly medical technologies such as open-heart surgery; changes in the organization of care, such as the growth of intensive care units in hospitals and increases in personnel; and the growth of institutions for long-term care.

Factors often cited as giving impetus to these changes include: the increase in demand for more costly health care services, as a result of Medicare, Medicaid, and other third-party payment that removed the individual from the direct consequences of the cost of services; the response of health care providers to reimbursement methods that offered financial incentives to increase medical care spending; and the rising expectations in the Nation with regard to health care services.

As health care expenditures continued to increase well above the general rate of inflation, there was mounting pressure in the Federal sector to develop policies to promote cost effectiveness and cost containment. In the search for solutions, every aspect of the health care system came under scrutiny. Efforts were made to control duplication of resources and excess capital investment. New methods were tested for paying hospitals, with the primary goal of containing hospital budgets and capital growth. The reimbursement methods tested included incentive reimbursement schemes (sharing the savings of reduced costs) and prospective reimbursement mechanisms. Several States instituted hospital rate-review programs. Experiments were designed to test the value of a second opinion on reducing unnecessary elective surgeries.

The 1972 Amendments to the Social Security Act mandated several cost-control measures. Section 223 of the legislation authorized the Department of Health, Education, and Welfare to determine prospective per diem reasonable cost limits and to withhold payments to hospitals for unreasonable expenses.

The Amendments also established the Professional Standards Review Organization (PSRO) program to review the care received by all federally funded patients. A major emphasis of the PSRO program was to eliminate unnecessary hospital days. Congress also established a network of health systems agencies (HSA's) with the responsibility of overseeing area-wide health planning and resource development. Certificate-of-need programs were implemented to review large capital expenditures. The Federal Government also encouraged the growth of health maintenance organizations (HMO's) as a way of promoting the use of preventive services and decreasing the need for hospital care. In August 1971, the Federal Government implemented the Economic Stabilization Program, bringing the health care industry under mandatory controls until April 30, 1974. Following the rise in health care inflation during 1974-76, the Voluntary Effort was initiated in 1977 to encourage the health care industry itself to control costs. In 1982, the Tax Equity and Fiscal Responsibility Act (TEFRA) set limits on Medicare reimbursements for hospital costs at the per-case level and also placed a limit on the annual rate of increase for Medicare's reasonable costs per discharge.

The growth of Medicaid expenditures became a major concern not only to the Federal Government but to State and local governments as well. Medicaid

expenditures in many States grew faster than State revenues. Much of the rapid expenditure increases in Medicaid outlays can be attributed to the growth in spending for long-term care services. To control the growth in Medicaid spending and to give States new options, the Omnibus Budget Reconciliation Act (OBRA) of 1981 changed some of the critical policy areas within Medicaid. Under Section 2176 of OBRA, States under a waiver may institute a variety of home- and community-based services for individuals who, "but for" the services, would be in long-term care institutions. To help bring hospital costs under control, OBRA granted the States new flexibility in the establishment of inpatient hospital reimbursement methodologies. Under Section 2175 of OBRA, States may institute a variety of programs (with and without waivers) to reduce costs by limiting the Medicaid provision that guarantees freedom of choice of provider. OBRA also contains several changes designed to reduce the number of persons eligible for Medicaid.

In addition, OBRA provided for the reduction of Federal matching funding for 3 years, beginning October 1, 1982, subject to certain exemptions. The Tax Equity and Fiscal Responsibility Act of 1982 permitted States to impose nominal copayments with certain limitations, to reduce program outlays and instill cost consciousness on the part of the recipient.

Some of these approaches were judged to be generally ineffective or inconclusive. Others were terminated or altered. The results of some of these innovations have been slow to take hold; others are too new to measure their results. Noteworthy among all these approaches has been the 1983 Amendments to the Social Security Act, which mandated the Medicare prospective payment system for hospitals, a major change that is generally believed to have had a significant impact even in its first year. Following is a discussion of prospective payment and other issues that are likely to be important concerns as Medicare and Medicaid enter their third decade.

Hospital prospective payment under Medicare

The national payment rate for hospitals based on diagnosis-related groups (DRG's) has been under way since October 1983, and it is scheduled to be phased in over 3 years. In its first year, the effects of the change from retrospective cost-based reimbursement principles for hospital payment to the incentives inherent in a prospective payment system (PPS) have been striking. For the first time since the implementation of Medicare and Medicaid, a cost-containment program for hospital services has been implemented that holds the promise of being a major structural change, one that will enable Medicare to predict annual increases in hospital expenditures.

Although the average length of stay was expected to fall, the actual decrease experienced since the inception of PPS is more pronounced than would have been projected based on Medicare historical

trend lines. Contrary to nearly universal expectations, admission rates under PPS have fallen. Supply capacity has also been affected; the number of short-stay hospital beds has fallen, and occupancy rates are the lowest since data have been available on this measure. At this time, there is no indication of significant shifts in utilization from inpatient hospital to SNF, HHA, or outpatient settings.

Prospective payment systems, in general, are intended to provide an economic incentive to restrain resource use and to maximize efficiency, without adversely affecting access or quality of care. The new hospital prospective payment system introduced immediate concerns, including finding methods for refining the system to take into account severity of illness. The most important concern, however, relates to assuring access and quality of care. Other issues include finding methods for paying for medical education and capital expenditures. The effectiveness of the hospital PPS under Medicare, as well as future prospective payment systems for other types of providers, depends on prudent and judicious use of strategies that contain costs, but that also do not jeopardize access and quality of care.

Peer Review Organizations

The original Medicare and Medicaid legislation mandated utilization review to assure that federally reimbursed health care services were furnished in an efficient and cost-effective manner. In 1972, the Professional Standards Review Organizations (PSRO) program was enacted to increase the effectiveness of Medicare review. Congress modified the requirements for peer review and passed new legislation in 1982, replacing the grant-based PSRO program with a new contract-based Peer Review Organizations (PRO) program for utilization review and quality control. The period of the contracts are initially for 2 years, and they are renewable biennially. Contracts with PRO's must specify objectives to be achieved over the contract period; an assessment of the organization's performance will be in terms of meeting those objectives. PRO review activities will be directed toward those quality, cost, and utilization areas most likely to be affected by the new hospital prospective payment system.

New technologies

The development, assessment, and coverage of new technologies are issues that Medicare and Medicaid face in this decade. A concern under the hospital prospective payment system is to find methods that can be used to adjust the current classification system to reflect technological changes, and to assure that the prospective system does not inhibit the development and diffusion of technologies that can enhance the quality of care.

Although retrospective, cost-based, third-party reimbursement is considered to be the major factor contributing to the explosion in hospital costs, it

facilitated the expansion of the hospital sector and encouraged the upgrading of hospital facilities and services and improved access to the hospital system by the elderly, in general, and the disadvantaged elderly, in particular (Lave, 1984).

The revised payment system offers an opportunity to moderate the flow of new technology into the health care sector. Toward this end, it is generally believed that the health care system should develop a more systematic approach to review and assess the effectiveness and efficiency of new and existing technologies. The Medicare and Medicaid programs also face decisions relating to coverage of the most highly technological and costly services, such as organ transplants.

Physician payment under Medicare

Medicare's Part B program is the third largest Federal domestic program, exceeded only by the social security cash benefit program and Medicare's Part A program. Since its inception, Medicare has been paying physicians on the basis of submitted charges for each unit of service. During the past 20 years, the rate of growth of Medicare reimbursements for physicians' services has been nearly equal to the rate of growth of reimbursement for inpatient hospital care.

To constrain the rate of growth of Part B outlays for a period of time, the Deficit Reduction Act of 1984 placed a freeze on Medicare maximum payment levels for a 15-month period beginning July 1, 1984, and introduced the concept of "participating physicians" (physicians who accept assignments for all services for this period). Incentives to become "participating physicians" were introduced and resulted in substantial increases in assignment. In the past 20 years, the physician-to-population ratio has increased 41 percent, while the hospital-beds-to-population ratio has risen only 12 percent (Ermann and Gabel, 1985). The increase in the Nation's supply of physicians may be a factor that leads to increased willingness to accept assignment of claims and, eventually, revised payment systems.

There is general agreement that physician payment under Medicare needs to be changed. The development of fee schedules for physicians' services and more general prospective payment systems, such as inpatient physician DRG's, were considered as possible reform alternatives. However, these approaches were viewed as impediments to the overall objectives of Medicare reform. Such reform is likely to be based on more competitive strategies that use capitation as the basic payment mechanism. Under this reform, the objective is to have a single capitated payment for physician, hospital, and other Medicare-covered services. Demonstrations of various capitated approaches are currently under development. These demonstrations will consider quality, beneficiary access, and out-of-pocket liability as well as cost effectiveness of service provision.

Capitated systems

For the first 15 years of the program, enrollment of Medicare beneficiaries in HMO's (or prepaid group practices) was relatively low. In 1981, 595,000 Medicare beneficiaries (a little more than 2 percent) were enrolled in capitated systems. The 1982 TEFRA included legislation to encourage enrollment in HMO's and other competitive medical plans (CMP's). In 1985, the number of Medicare beneficiaries enrolled in HMO/CMP and group practice prepayment organizations reached 1,117,000 (3.7 percent of Medicare enrollees).

The savings from HMO's are believed to stem from the incentives for efficiency in a prepaid capitation payment method where the health care provider receives a fixed amount for assuming the responsibility for an enrollee's care instead of fee-for-service payments. It is also believed that increasing competition in the health care sector holds the promise of further constraining health care costs; if individuals are offered incentives to choose efficient, less costly health delivery systems, then providers will compete in the market for enrollees. In the effort to promote competition in Medicare, additional options are being considered, including testing geographic capitation approaches. Also being discussed is a voucher system for enrollees to use toward the purchase of coverage from one of a number of competing health plans.

There are four major issues relating to fully capitated systems under Medicare. The first is to find adequate methods to determine capitated payments that reflect differences in beneficiary health status and potential use of resources. The second is to control favorable or unfavorable selection practices, on the part of providers and beneficiaries, so that competition is on the basis of efficiency rather than unfair market advantages (Eggers, 1980; Eggers and Prihoda, 1982). The third is to find ways of monitoring these capitated systems, especially to assure that high-risk persons have access to services and that quality of care is maintained. The fourth relates to the wide geographic variations in Medicare reimbursements across areas and within regions, and the extent to which these differences should be taken into account in future payment systems.

Other competitive efforts

Other significant changes are taking place in the organization and delivery of care. In the private sector, a marked increase has occurred in the number of for-profit hospital chains. Currently, there are 28 investor-owned hospital chain systems in the United States. In 1984, these chains increased by 15 percent the number of hospital beds they own or manage; they now control about 13 percent of all the non-Federal short-stay hospital beds in the United States (Johnson, 1985).

The development of multihospital systems is occurring not only in the for-profit hospital sector,

but throughout the hospital industry. Approximately one-third of the Nation's hospitals are part of multihospital systems, defined as corporations that own, lease, or manage two or more acute-care hospitals (Weil, 1985). These systems have been evolving and growing through horizontal expansion (acquiring acute care facilities) and vertical diversification (adding other types of facilities). Other growing nonhospital-based delivery systems include freestanding ambulatory surgery centers and emergency and urgent care centers. The role of risk taking (underwriting) is also changing rapidly as insurance companies acquire HMO's, and hospital chains purchase insurance companies. The impact of these developments on health expenditures and the health care sector in the future is not yet known.

As our health system becomes a competitive industry, cross-subsidies and cost-shifting (which were common in the past) are disappearing. This has led to a dilemma for community hospitals, because many of them have been providing considerable amounts of uncompensated care to the uninsured. Public hospitals and teaching hospitals bear a larger share of uncompensated care relative to their revenues, compared with the nonteaching voluntary and investor-owned hospitals (Wilensky, 1984). When the costs of uncompensated care cannot be easily allocated across payers, institutions must either reduce the amount of uncompensated care they provide or find other sources of revenues. Thus, the financing of uncompensated care has become a growing health policy issue that will need to be addressed by legislators.

Long-term care financing and delivery

A general concern exists in the Nation about the aging of the population and the need to develop policies that will provide mechanisms for the financing and delivery of long-term care services. Medicare is an acute-care program. The burden for providing payment for long-term care has fallen on Medicaid. Many feel that the program cannot carry this burden indefinitely. Currently, few of the aged have insurance for nursing home care or for long-term care services in the home. Consequently, a majority of the aged face the risk of financial ruin and dependency from an extended long-term illness or disability that requires personal and nursing care services. The current financing dilemma is likely to worsen in the next three decades as the proportion of the population that is 65 years of age or over rises.

Related to the financing issue is the lack of availability of appropriate and less costly long-term care services in many communities. The impaired elderly are likely to require personal care and support services as much as medical care services. Except in an institutional setting, the combination of such services is often difficult to obtain by those with long-term care needs. Most aged people with functional limitations prefer to remain in the community and maintain their independence as long as possible.

Consequently, there is a major concern to find new approaches toward caring for the needs of the elderly in the community.

Entitlement under Medicare

Currently, Medicare covers nearly the entire population 65 years of age or over. In 1984, 13 percent of the aged Medicare population consisted of persons 65 and 66 years of age. Because of increased life expectancy and changes in the future social security retirement age, recommendations have been made to increase the age of Medicare entitlement to 67 years. If people were employed until age 67, the majority would have health insurance coverage under their employment. For those who retire earlier, obtaining private health insurance until age 67 or later becomes a new issue. Although the majority of people in their sixties are in good health, there are many who retire early because of work limitations, and this may cause difficulties in obtaining stop-gap health insurance coverage.

A more profound issue has been raised about Medicare's universal coverage of the aged. Because the overall economic position of the aged has improved during the past two decades, the issue has been raised as to whether or not Medicare should be limited or more focused on the needy aged. If Medicare became a needs-tested program, new issues would arise relating to developing adequate private insurance mechanisms for the nonpoor aged population throughout their retirement years.

Eligibility under Medicaid

Access to Medicaid varies significantly by State. During the past two decades, a recurring issue has been the widely varying policies that States have chosen in determining the kinds of optional groups to include in their Medicaid programs as well as the standards set for income and assets, which are the basis for eligibility. Consequently, similar kinds of needy persons do not have equal access to Medicaid coverage throughout the Nation. In addition, because Medicaid is limited to the existing welfare categories, needy persons 21-64 years of age are ineligible for Medicaid unless they are disabled or in families with dependent children.

Financing Medicare trust funds

The Part A trust fund depends upon intergenerational transfers through the payroll tax on current workers and employers. Revenues to the trust fund depend on the number of workers in covered employment, the Part A tax rate, and the wage base. The ratio of workers to cash beneficiaries under the social security retirement and disability programs declined from 4.0 to 1 in 1965, to 3.3 to 1 in 1985. It is projected that the ratio will decline to 3.1 to 1 during the next 25 years. In 1985, employees and

employers each contributed 7.05 percent in social security taxes up to maximum taxable earnings of \$39,600.

The Part B trust fund is financed by enrollee premiums and from general revenue tax receipts. The general revenue share of Part B has grown from 50 percent in 1971 to 74 percent in 1983. Through 1983, Part B premiums could not increase more than the increase in social security benefits. Beginning in 1984, premiums were established so as to cover 25 percent of the costs incurred by the aged. A major issue under Part A and Part B is whether the share the aged contribute can be increased without undermining the principals of insurance and without placing an undue burden on low-income aged beneficiaries.

Implications for the future

These recent health system changes, including prospective payment, alternative organizational arrangements, and the competitive model in the health care sector, are likely to have profound effects on the Medicare and Medicaid programs. Although these new approaches are expected to control the escalation in costs, which have been a major budgetary concern during the past 20 years, the market-oriented changes in the health care system are currently shifting the focus of concern toward assuring access and quality of care. The directions taken on the major program issues, including eligibility, financing, coverage of new technologies, and the development of long-term care policies, will affect how well the Medicare and Medicaid programs meet the needs of the most vulnerable and high-risk populations in the Nation. The following sections on the 20-year experience of the beneficiaries present background information and program data that are relevant to policy directions and future program changes for Medicare and Medicaid.

Covered populations

In 1985, there were an estimated 238 million people in the United States. Over 50 million (more than one out of five) were enrolled in either Medicare or Medicaid or both programs. Following is a description of demographic and socioeconomic characteristics of program enrollees, by major subgroups. Under Medicare, the subgroups are: the aged, the disabled, and persons with end-stage renal disease (ESRD). Under Medicaid, the subgroups are AFDC and SSI. There are also persons with joint eligibility for both programs (dual enrollees). Because the rationale for public health care financing programs is based on the economic status of the beneficiary populations, a discussion of trends in the economic status of persons 65 years of age or over and of children under age 18 is also presented. These two age groups together account for more than 80 percent of all Medicare and Medicaid enrollees.

Aged population under Medicare

The Medicare legislation made nearly the entire population in the Nation 65 years of age or over eligible for coverage under Medicare's hospital insurance (HI) program. During the 11 months between the time the law was enacted, July 30, 1965, and the first day of operation, July 1, 1966, 19.1 million aged persons were enrolled in Medicare's HI program. The vast majority of these people were automatically entitled to hospital insurance because they were social security and railroad retirement cash beneficiaries. A special transitional provision of the law brought in most of the remaining aged population, about 2 million people. Relatively few aged persons (an estimated 150,000) were excluded; principally they were aliens, or Federal civil service employees and annuitants. Coverage under Medicare's SMI program requires voluntary enrollment; 17.7 million signed up the first year. In the following years, the proportion of HI aged enrollees who were enrolled in SMI was about 97 percent. Thus, from its beginnings and throughout its 20-year history, Medicare has been a nearly universal health insurance program, providing a uniform set of benefits for the population 65 years of age and over. This universal program became even more so with the 1982 amendment that included the Federal civil service under Medicare.

As shown in Table 1, during the period 1966-84, the Medicare population increased by 42 percent, from 19.1 million to 27.1 million. During this same time period, the Nation as a whole increased by only 21 percent (U.S. Bureau of the Census, 1985). The oldest age group, people 85 years or over, increased by 134 percent from 1.2 million to 2.8 million persons, a rate of increase far greater than that experienced by the groups 65-74 and 75-84 years of age. Medicare population growth was more than twice as great in the South and West as in the Northeast and North Central census regions.

Increases in the Medicare population during these two decades reflects, in part, increases in longevity in the United States. Life expectancy, at birth and at age 65, has grown significantly during this century. In 1900, life expectancy was only 49.2 years; by 1984, it had increased to 74.7 years (Table 2). Declining death rates from heart disease, cerebrovascular disease, influenza, and other causes of death contributed to the growth in the elderly population (Rice and Feldman, 1983). Persons who reached age 65 in 1984 can expect to live, on average, 16.8 additional years, or more than 2 years longer than persons who were 65 years of age when Medicare began.

Projections made by the U.S. Bureau of the Census (1985) indicate that the population 65 years of age or over will increase faster than the population under age 65 for the remainder of this century and for the first two decades of the 21st century. Increases in life expectancy, as well as lower birth rates, mean that the traditional population pyramid (consisting of a broad base of children 0-4 and 5-9 years of age, a vertex of

Table 1

Number and percent distribution of Medicare hospital insurance enrollees 65 years of age or over, by age, sex, race, and census region: July 1, 1966 and July 1, 1984

Age, sex, race, and census region	Enrollees 65 years or over				Percent increase 1966-84
	1966		1984		
	Number in millions	Percent	Number in millions	Percent	
Total	19.1	100	27.1	100	42.1
Age					
65-74 years	12.0	63	15.8	58	31.8
75-84 years	5.9	31	8.5	32	44.4
85 years or over	1.2	6	2.8	10	134.2
Sex					
Male	8.1	43	10.9	40	34.3
Female	11.0	57	16.2	60	47.9
Race					
White	17.0	89	23.9	88	40.5
All other	1.4	8	2.4	9	64.4
Unknown	0.6	3	0.8	3	32.9
Census region					
Northeast	5.0	26	6.2	23	24.3
North Central	5.5	29	7.0	26	25.8
South	5.4	28	8.7	32	61.7
West	2.8	15	4.6	17	64.0
Outlying, foreign, and unknown	0.3	2	0.5	2	79.5

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

Table 2

Life expectancy at birth and average remaining years at age 65: United States, selected years 1900-84

Year	At birth	At age 65
	Life expectancy in years	
1900	49.2	11.9
1930	59.3	12.3
1950	68.1	13.8
1960	69.9	14.4
1965	70.2	14.6
1970	70.8	15.0
1974	71.9	15.6
1977	73.2	16.3
1981	74.2	16.7
1982	74.6	16.8
1983	74.6	16.7
1984 ¹	74.7	16.8

¹Provisional data.

SOURCE: National Center for Health Statistics: Data from the National Vital Statistics System.

relatively few in the group 80-84 years of age, and fewer still 85 years of age or over) will no longer prevail by the year 2020. During the first two decades of Medicare, people 65 years of age or over represented approximately 1 in 10 of the Nation's total. By the year 2030, about 1 person in 5 will be 65 years of age or over, and the "oldest-old," that is, those 85 years of age and over, will number more than 8 million people. The aging of the population projected for the United States is also projected for

every industrialized nation in the western world as well as for Japan.

In the past, discussions of the aging of the population have often been based on stereotyped images of people 65 years of age or over. The aged have often been portrayed as frail or mentally impaired. More recently, studies and surveys of the aged show a heterogeneous population, spanning 30-35 years, with a range of physical and mental attributes that greatly overlap those of younger age groups. In the 1980 National Medical Care Utilization and Expenditure Survey (NMCUES), 63 percent of the noninstitutionalized population 65 years of age or over rated their health as "excellent or good," and 60 percent had no limitations in major or outside activities (Kasper, 1985). The probability of functional impairment, however, rises steadily with age. The Long-Term Care Survey of 1982 found that 19.1 percent of Medicare enrollees were living in the community with some limitations in the activities of daily living (ADL), such as bathing or dressing, and/or limitations in the instrumental activities of daily living (IADL), such as shopping for groceries or doing housework. The 1980 Census found that 4.6 percent of the population 65 years of age or over were in homes for the aged, including nursing and convalescent homes. Of those institutionalized, 74 percent were women. As shown in Table 3, there is a steady rise in impairment and institutionalization as age increases. In the group 65-69 years of age, 12.8 percent were not in institutions but had ADL or IADL limitations; 1980 Census data indicate that 1.1

Table 3

Estimated percent of aged persons with functional limitations, by living arrangements, age, sex, and race: United States

Age, sex, and race	Number of Medicare aged enrollees in thousands July 1982	Percent of Medicare enrollees with ADL limitations and living in the community 1982 ¹	Percent of Medicare enrollees with ADL or IADL limitations and living in the community 1982 ¹	Percent of aged persons institutionalized 1980 ²
Total	26,539.6	12.6	19.1	4.6
Age				
65-69 years	8,652.1	7.7	12.8	1.1
70-74 years	7,021.6	9.7	15.8	2.1
75-79 years	5,063.9	13.7	21.1	4.3
80-84 years	3,284.9	19.1	27.8	9.0
85 years or over	2,617.4	26.6	34.5	18.7
Sex				
Male	10,652.6	10.6	17.1	3.0
Female	15,887.4	14.0	20.6	5.8
Race³				
White	23,396.5	12.5	18.7	4.9
All other	2,371.9	18.5	28.5	3.3

¹Activities of daily living (ADL) include bathing, getting in and out of bed, etc. Instrumental activities of daily living (IADL) include shopping for groceries, housework, etc.

²Aged persons in homes for the aged, including nursing and convalescent homes.

³Those of unknown race totaled 0.8 million people.

SOURCES: (Macken, 1985; U.S. Bureau of the Census, 1984).

percent in that age range were institutionalized. By age 85 years or over, the corresponding figures were 34.5 percent and 18.7 percent. These findings clearly indicate that needs for long-term care services will be affected by the aging of the population. Yet, even among those 85 years of age or over, substantial diversity is evident. If approximately 35 percent are living in the community with some functional limitations and about 20 percent are in homes for the aged, including nursing and convalescent homes, then about 45 percent of all persons 85 years or over can be assumed to be living in the community free of functional limitations. These data support the cautionary warning Binstock (1985) raises against unwarranted stereotyping of even the oldest-old.

Disabled population under Medicare

In 1972, major revisions to the Social Security Act extended Medicare coverage, beginning July 1, 1973, to disabled persons under age 65 receiving social security or railroad retirement cash benefits because of disability, and persons suffering from end-stage renal disease (ESRD). Surveys by the Social Security Administration in 1966 and 1972 showed that disabled persons used more health care services, had less private health insurance coverage, and had higher out-of-pocket expenses than the nondisabled population (Krute and Burdette, 1981; Stanley and Swisher, 1969; Brehm and Cormier, 1970; Duchnok, 1981; Ferron, 1981; Advisory Council on Social

Security, 1965). For the disabled group, Medicare coverage begins only after the disabled person has received cash benefits for 24 months. For the ESRD population, coverage begins 3 months after the beginning of maintenance dialysis. The 3-month waiting period is waived for a person receiving a transplant or for those who initiate a program of self-care dialysis.

The social security disability program was established in 1956 to provide cash benefits to disabled workers. These disabled workers must first meet insured status requirements relating to the necessary quarters of employee contributions to the disability trust fund. Second, they must meet the social security definition of disability: the inability to engage in any substantial gainful activity by reason of an impairment that can be expected to result in death or last for a continuous period of not less than 12 months. In addition to disabled workers, the disability program covers disabled dependents who are adults, age 18 or over, who were disabled in childhood, and disabled widows or widowers who are 50 years of age or over.

Results from the 1978 Survey of Disability and Work (Social Security Administration, 1978), in which information was collected about the characteristics of the severely disabled population (defined as persons unable to engage in gainful work) between 18 and 64 years of age in the Nation in 1978, are shown in Table 4. The Survey found 10.9 million noninstitutionalized severely disabled persons, of whom 2.9 million

Table 4
Number of noninstitutionalized persons 18-64 years of age who are severely disabled, by selected characteristics: United States, 1978

Selected characteristic	U.S. population 18-64 years	Severely disabled persons	
		Total	SSA disability beneficiaries
Number in millions	127.0	10.9	2.9
Percent 55-64 years	16.0	46.0	57.0
Percent male	49.6	43.2	65.9
Percent black	10.6	16.8	14.0
Median years of school completed	12	10	10
Percent below poverty level	8.1	22.1	15.8

SOURCE: (Social Security Administration, 1978).

persons (26.6 percent) were social security disability beneficiaries. Since the social security disability program is tied to covered employment, it is not surprising that a high proportion of those receiving disability benefits, 65.9 percent, were male, although males constituted only 43.2 percent of the total severely disabled population.

In 1978, about 16.8 percent of the severely disabled population were black people, a figure nearly 60 percent higher than the proportion of black people (10.6) in the population surveyed. For the Nation as a whole, 8.1 percent of people 18-64 years of age were living below the poverty level; in the severely disabled population, 22.1 percent were living below the poverty level. For those who were social security cash disability beneficiaries, the proportion living below the

poverty level was less, 15.8 percent, although it was still nearly twice as high as the general population in that age range.

As noted earlier, the Medicare program covers disabled beneficiaries only after they have been receiving social security cash benefits for 24 months. Of all persons awarded disability benefits in 1975, approximately 11 percent died before meeting the 24-month waiting period for Medicare coverage (Lubitz and Pine, 1985). Thus, because of the eligibility requirements of both the social security cash disability program and the Medicare program, Medicare covers about one-fourth of the severely disabled population in the Nation.

When Medicare coverage for the disabled began on July 1, 1973, there were 1.7 million Medicare enrollees (Table 5). Of these enrollees, 79.3 percent were disabled workers, 16.4 percent were adults disabled in childhood, and 3.9 percent were widows (with a few widowers). The population entitled solely because of ESRD was only 0.4 percent of the newly entitled.

Disabled workers under Medicare are primarily male and predominantly 45 years of age or over. Adults disabled in childhood have the reverse age pattern, with the majority under 45 years of age. More than one-half in this category are mentally retarded, and about 25 percent are institutionalized (Cormier, 1985). Disabled widows and widowers make up a group that is nearly all women and predominantly 60-64 years of age.

Between 1973 and 1984, the disabled population under Medicare increased 66.6 percent, while the aged population increased 25 percent. The relatively high increase in the Medicare disabled population reflects the accelerated growth of the social security cash disability program during the late 1960's and early 1970's. Medicare enrollment of the disabled peaked in

Table 5
Number and percent distribution of disabled Medicare hospital insurance enrollees under age 65, by type of entitlement: July 1, 1973, and July 1, 1984.

Type of entitlement	Enrollees under age 65				Percent increase 1973-84
	1973		1984		
	Number in thousands	Percent	Number in thousands	Percent	
Total	1,731	100.0	2,884	100.0	66.6
Workers	1,372	79.3	2,310	80.1	68.4
Adults disabled since childhood	284	16.4	460	16.0	62.0
Widows and widowers	68	3.9	85	2.9	25.0
End-stage renal disease ¹	6	.4	30	1.0	400.0

¹ Entitled solely because of end-stage renal disease (ESRD). Aged persons in Table 1 and disabled persons in above categories may also have ESRD.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

1981, when the total HI enrollment was nearly 3 million, and it has declined in each subsequent year. In 1984, enrollment was 2.9 million.

Medicare's disabled population has a much higher mortality rate than the general population. A recent study of the disabled population under Medicare showed that their mortality rate was 6.6 times the mortality rate of the general population 20-64 years of age. The relatively poor health status of the disabled population under Medicare is further illustrated by the finding that the mortality rate of the Medicare disabled population 60-64 years of age was twice that of the Medicare aged population in the group 65-69 years of age (Lubitz and Pine, 1985).

End-stage renal disease enrollees

The 1972 Amendments to the Social Security Act also provided coverage to one group of people with catastrophic illness, those with end-stage renal disease. The term end-stage renal disease (ESRD) is a generic one, used to describe a wide variety of diseases that result in terminal failure of the kidneys. There are two basic treatments: transplantation and dialysis. Before Medicare coverage, when rationing of scarce dialysis machines was the rule, the vast majority of people with ESRD could not get services and died.

Transplantation and dialysis greatly improve the chances of survival for ESRD patients. Patients receiving a kidney transplant have a 1-year survival rate of 92 percent. Dialysis patients from age groups similar to transplanted patients have a 1-year survival rate of 87 percent. However, in subsequent years, survival for transplant patients greatly improves while survival rates for dialysis patients remain essentially unchanged. Therefore, long-term patient survival is greater with a kidney transplant than with maintenance dialysis (Krakauer et al., 1985).

The impact of Medicare coverage on access to ESRD services was dramatic. Before the 1972 Amendments, selection criteria were rigid; those selected were people with the best chance of returning to work while on dialysis. Some important characteristics of the ESRD population before and after Medicare coverage are shown in Table 6. In 1967, ESRD patients on dialysis were predominantly male (75 percent), white (91 percent), with at least a high school education (72 percent), and under age 55 (91 percent). By 1978, there were striking gains in access, and the ESRD dialysis population more closely resembled the actual prevalence of ESRD in the U.S. population: female (51 percent), black (35 percent), not high school graduates (46 percent), and over age 55 (46 percent) (Evans, Blagg, and Bryan, 1981).

Medicare coverage for ESRD began on July 1, 1973. In 1974, the first full year of coverage, there

Table 6
Social and demographic characteristics of the hemodialysis patient population

Characteristic	1967	1978
Percent distribution		
Sex		
Male	75.0	49.2
Female	25.0	50.8
Race		
White	91.0	63.7
Black	7.0	34.9
Other	2.0	1.4
Education		
Junior high school or less	10.0	28.7
Some high school	17.0	17.2
High school graduate	27.0	28.4
Some college	20.0	18.2
College graduate	12.0	5.7
Postgraduate school	13.0	1.8
Unknown	1.0	0.0
Age		
Under 25 years	8.0	3.4
25-34 years	24.0	10.0
35-44 years	32.0	14.6
45-54 years	27.0	25.8
55 years or over	7.0	45.7
Unknown	2.0	0.5
Marital status		
Single	16.0	13.0
Married	79.0	61.8
Separated	} 5.0	6.3
Divorced		7.4
Widowed		11.5
Employment status		
Employed	41.7	18.4
Unemployed	38.3	17.7
Disabled	} 13.2	53.6
Student		(¹)
Retired		10.2
Other		0.1
Unknown	6.8	0.0

¹ Not coded.

SOURCE: (Evans, Blagg, and Bryan, 1981).

were 15,993 persons¹ identified as having ESRD (Table 7). Of these, 4,868 were 65 years of age or over and entitled to Medicare under the aged program. Of the population under age 65, about one-third were entitled under the disability program and two-thirds were entitled solely because of ESRD.

The number of people being treated for ESRD under Medicare increased over five-fold by 1983, to 81,873 persons. Much of the rapid growth was in the early years of the program, reflecting the fact that

¹To analyze the total number of persons being treated for ESRD and the use and costs of their services, the sections in this article covering ESRD include data for Medicare beneficiaries with ESRD who are eligible as aged or disabled enrollees.

Table 7

Persons with end-stage renal disease enrolled in Medicare hospital insurance, by age, sex, and race: July 1, 1974, and July 1, 1983

Age, sex, and race	Number of enrollees		Percent increase 1974-83
	1974	1983	
Total	15,993	81,873	412
Age			
0-14 years	211	1,135	438
15-24 years	1,075	4,599	328
25-34 years	1,774	10,938	517
35-44 years	2,161	12,508	479
45-54 years	3,069	14,750	381
55-64 years	2,836	18,957	568
65 years or over	4,868	18,985	290
Sex			
Male	9,071	45,539	402
Female	6,921	36,332	425
Race			
White	11,738	54,360	361
All other	3,944	25,842	555
Unknown	311	1,671	437

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

persons who otherwise would have died were now receiving treatment. Enrollment in 1975 and 1976 increased by 42 percent and 27 percent, respectively. By 1983, the rate of growth was down to 9 percent.

Increases over time varied greatly by age, race, and to a lesser degree, sex. Between 1974 and 1983, the largest increase by age occurred for persons 55-64 years of age; the smallest increase was for persons 65 years of age or over, which reflected, in part, the high mortality rate for ESRD persons over age 65 (Eggers, Connerton, and McMullan, 1984). The number of persons 15-24 years of age with ESRD also increased at a relatively low rate, reflecting, in part, the high rate of transplantation; in this age group, almost one-half of dialysis patients receive a transplant in any year. For those whose transplants still function after 3 years and who are not otherwise disabled, Medicare entitlement is terminated. Between 1974 and 1983, ESRD enrollment increased more for females (425 percent) than for males (402 percent), and was much greater for races other than white (555 percent) than for white people (361 percent). The all other racial group was 25 percent of the Medicare ESRD population in 1974 and 32 percent in 1983.

The increase in the number of people treated for ESRD reflects, in part, an increase in the kinds of cases being treated. The increase is greatest for people whose renal failure was caused primarily by hypertensive disease or diabetic nephropathy (Eggers, Connerton, and McMullan, 1984).

Some people suffering from ESRD are not covered by Medicare. The 3-month waiting period is one reason; another is not meeting the insured status from covered employment under the social security

program. In a study of unentitled ESRD patients in 1981, it was estimated that there were 8,500 patients not entitled to Medicare benefits. One-half were awaiting entitlement; the other one-half were primarily being supported by other public programs, that is, Medicaid, Veterans' Administration, and State ESRD programs (Liu and Petrie, 1984).

Aid to Families with Dependent Children

The Medicaid program primarily serves children and mothers who receive Aid to Families with Dependent Children (AFDC), and those people who are over age 65, blind, or disabled in the Supplemental Security Income (SSI) program. The discussion of the Medicaid population throughout this article revolves about Medicaid recipients, that is, persons who received at least one service under the Medicaid program during the year; for the time period under discussion, no reliable data are available on the average annual number of Medicaid enrollees or eligible persons.

Since the Medicaid program began on July 1, 1966, the AFDC population has been the largest component of the program. In fiscal year 1984, of the 21.4 million persons who received services under the Medicaid program, 15.4 million (about 70 percent) were in the AFDC category. These AFDC Medicaid recipients included 9.8 million dependent children and 5.6 million adults in families with dependent children. As will be shown later, although the children and adults in the AFDC category represent nearly 70 percent of all Medicaid recipients, they account for only 25 percent of Medicaid expenditures.

The AFDC cash assistance program was established under Title IV of the Social Security Act in 1935. Federal grants reimburse a percentage of State expenses incurred in providing financial assistance to needy children and the needy relative with whom they are living. It is not enough to be a poor family with children to qualify for cash assistance under the AFDC program. Only certain categories of the poor qualify for cash benefits. To be eligible, a family with children must have income below a State-specified income standard, and the children must be deprived of parental support or care because of the death, incapacity, or continued absence of a parent. States have the option of providing AFDC grants to other groups, including two-parent poor families if the parent who is the principal earner is unemployed.

The Office of Family Assistance, Social Security Administration, periodically analyzes the demographic and economic characteristics of AFDC families. In 1975, the proportion of AFDC children deprived of parental support or care because of divorced and separated parents was at a peak level of 48 percent; children in families with unmarried mothers accounted for 31 percent. In 1982, as shown in Table 8, the leading reason that children on AFDC assistance were deprived of parental support was because their parents were unmarried; this accounted for 46.5 percent of all children receiving assistance. Children in families with

Table 8
AFDC¹ children receiving cash assistance, by
reason for deprivation of support or care of
parent: May 1982

Reason for deprivation	May 1982	
	Number in thousands	Percent
Total recipient children	6,624	100.0
Deprived because father is:		
Deceased	58	0.8
Incapacitated	229	3.5
Unemployed	399	6.0
Absent from home:		
In Armed forces	2	0.0
Divorced/legally separated	1,363	20.6
Nonlegally separated (deserted)	1,260	19.0
Not married to mother	3,080	46.5
Other reason	103	1.5
Deprived because mother is not at home	85	1.3
Reason for deprivation is not known	45	0.7

¹Aid to Families With Dependent Children.

SOURCE: (Social Security Administration, 1985).

divorced and separated parents accounted for 39.6 percent. It is clear that an out-of-wedlock birth places a child at high risk of being poor. In 1980, there were 666,000 out-of-wedlock births nationwide. Of these births, 55 percent (366,000 children) were included in the May 1981 AFDC case load (Social Security Administration, 1985).

The AFDC family size has been decreasing. In 1967, the average size of an AFDC family was 4.1 persons; in 1982, the average size was 2.9 persons. In 1982, nearly 75 percent of AFDC families had one or two children; only 10 percent of the families had more than three children (Social Security Administration, 1985).

The Omnibus Budget Reconciliation Act (OBRA) of 1981 contained provisions that directly affected the size and composition of families covered under the AFDC program. The major OBRA provision required fuller consideration of other income, especially earned income, received by, or available to, AFDC families. OBRA provided that a family could not be eligible for AFDC if it had total income exceeding 150 percent of the State's need standard.² In response, 16 States raised their need standards, evidently to curtail cuts in eligibility for AFDC cash assistance (Hill, 1984).

OBRA had a major initial impact on the AFDC population. Comparison of data before and after implementation of OBRA shows that, in May 1981, an estimated 11.8 percent of AFDC families had

²Determination as to whether or not a family is eligible for an AFDC cash assistance grant begins with listing total family income. Under State rules, a portion of total income may be "disregarded" for costs of transportation to the job, child care, and so forth. OBRA limited the sum of all income disregarded to 50 percent of the State's need standard.

earned income; in May 1982, only 5.7 percent had earned income, representing a decrease of about 242,000 cases. The total number of children qualifying for AFDC grants fell from 7.3 million in May 1981 to 6.6 million in May 1982. In May 1983, AFDC grants to children rose to 7.1 million, the rise attributed primarily to an increase in the number of grants to children in families with unemployed parents. In May 1984, the figure rose again to 7.2 million children (Office of Family Assistance, 1985).

Medicaid eligibility policy for all categories of assistance is extremely complex, because it is governed by both the rules and regulations of separate State public assistance programs and Federal Medicaid laws and regulations. As noted, the AFDC assistance program provides grants primarily to poor families with children who are deprived of parental support because of death, incapacity, or continued absence. At a minimum, each State's Medicaid program must cover all persons who receive cash payments under the AFDC assistance program. Large variations exist, however, in how each State runs its AFDC cash assistance program, which in turn determines who is automatically eligible for Medicaid. States may also provide cash benefits to specified optional groups. If States include any optional groups in their AFDC cash assistance program, then they must automatically include them in their Medicaid program. In 1982, 23 States optionally covered families with unemployed parents, 29 States covered first-time pregnant women, and 37 States covered 18-year-old children who are attending school (Clinkscale et al., 1983; Hill, 1984), as well as other optionally specified groups.

State Medicaid programs may also cover the "medically needy"; these are categorically related individuals ineligible for cash assistance whose income is no greater than 133 1/3 percent of the payment level the State sets for an AFDC family of the same size. By including a "spend-down" provision, a State opens up Medicaid to categorically related people of any income level, if their medical bills are large enough. It is possible for a family to have income above the AFDC cash assistance standard but below 133 1/3 percent of that level, thus automatically qualifying for medically needy benefits. However, in many cases, medically needy families have incomes in excess of the medically needy income level, but they "spend down" to that protected income level (Hill, 1984). Spend down refers to the process whereby people incur medical expenditures which, when deducted from their incomes, reduce their incomes down to the State's medically needy income level. In 1982, 29 States and the District of Columbia had a medically needy program; 20 States did not have one.

Other needy children are also optionally included in State Medicaid programs. One coverage group that is potentially large is often referred to as "Ribicoff kids," so named because Senator Abraham Ribicoff sponsored the portion of the Medicaid legislation establishing this optional Medicaid group. These poor children come from intact, two-parent families, or are institutionalized, in foster homes, or have their

adoptions subsidized by a public agency (Hill, 1984). States may cover some or all of these children. Rymer, Burwell, and Madigan (1984) have estimated that, in 1982, this group was less than 4 percent of all Medicaid recipients; however, the average cost per recipient was about twice as much as for the average AFDC child, probably indicating that only those with substantial medical needs are enrolled under the Ribicoff provision.

Supplemental Security Income

The Medicaid program provides coverage for persons who receive cash benefits under the Supplemental Security Income (SSI) program and other SSI-related persons who meet financial criteria. In 1984, more than 6 million people in the SSI categories received Medicaid benefits. The SSI categories include three groups: aged persons 65 years or over, blind persons, and disabled persons. Although the SSI categories make up less than 30 percent of Medicaid recipients, these individuals account for more than 70 percent of Medicaid outlays.

To qualify for SSI payments, a person must satisfy income and resource tests as well as program criteria for either aged, blind, or disability status. The criteria for the aged group is that a person must be 65 years or over, for blindness and disability, the criteria are essentially the same as the social security disability criteria. The Federal Government sets a uniform national payment level that may be supplemented by the States.

The Office of Policy, Social Security Administration, periodically reports on the characteristics of the SSI population. In December 1983, more than 3.9 million people received SSI cash benefits. In the aged category, there were 1.5 million people; in the blind category, 79,000 people; and in the disabled category, 2.3 million people. Among the blind, 23,000 people were aged; among the disabled, 465,000 people were aged. Thus, nearly 2 million of the SSI cash recipients were 65 years of age or over. Black people and females are disproportionately represented in the SSI population. Approximately 60 percent of the SSI cash recipients were white and 26 percent were black. People of other races made up 4 percent; for the remainder, race was unknown. Of all aged SSI recipients, 74 percent were female; of the blind and disabled SSI population, 60 percent were female. Disabled children represented about 6 percent of the SSI caseload; the majority of child recipients were 14 years of age or under (Kahn and Rasberry, 1984).

By Federal law, States do not have to automatically cover all SSI cash recipients in their Medicaid programs. States have three options. First, they can elect to automatically cover all SSI recipients under Medicaid; in 1982, 28 States and the District of Columbia elected this option. Second, States can elect to cover all SSI cash recipients if the SSI individuals complete a separate Medicaid application to the

States; in 1982, six States elected this option. Finally, States may impose Medicaid eligibility criteria that are more restrictive than the Federal SSI criteria so long as the criteria were part of the State's Medicaid State plan in January 1972; in 1982, there were 15 States that had elected this option (Rymer, Burwell, and Madigan, 1984). In the 29 States and the District of Columbia with medically needy programs, Medicaid is opened up to categorically related aged, blind, and disabled persons who can qualify as medically needy.

Medicaid recipients

In examining trends in the size of the Medicaid population, it is necessary to emphasize that data are not available on the number of persons enrolled each year in the Medicaid program. Federal reporting requirements for States up until recently have focused on obtaining counts of "recipients," that is, the number of persons who received Medicaid covered services. Because not all Medicaid enrollees use a service in any 1 year, the number of Medicaid recipients is clearly an undercount of the number of Medicaid enrollees, that is, persons who are entitled to use services. For the period 1980-82, data are available from five large States that provide counts of enrollees and counts of recipients. In these five States, 75-81 percent of enrollees used services in a given year. Thus, the use of counts of total recipients as a proxy for the number of enrollees in these States would have underestimated total enrollees by about 20-25 percent. For AFDC children, recipient counts would underestimate enrollee counts by 20-30 percent; for AFDC adults, by 20-25 percent; and for the Medicaid aged, blind, and disabled, by 10-25 percent (Baugh, 1985). Despite such shortcomings in using recipient counts, recipient data are useful for examining population trends over time and for use and expenditure analyses, which are covered in this article.

The number of Medicaid recipients, by eligibility categories, between 1973 and 1984, are shown in Table 9. Although the total number of Medicaid recipients increased from 19.6 million in 1973 to 21.4 million in 1984, or 8.9 percent, the number of recipients rose only until 1977, when the total reached 22.9 million. Between 1978 and 1984, the number of recipients moved up or down, but only by small amounts. The number of children in the AFDC category receiving Medicaid services increased 13.3 percent, but the number of adults increased 37.7 percent; the smaller increase for children reflects, in part, the decrease over time in the size of the AFDC family.

In 1984, Medicaid SSI recipients numbered just over 6 million people. Of these, 3.2 million were aged, 2.9 million were disabled, and 80,000 were blind. Between 1973 and 1984, the number of aged and blind Medicaid recipients declined. In contrast, the number of disabled rose 59 percent. The relatively large increase in the disabled under Medicaid parallels somewhat the large increase in the disabled under

Table 9
Medicaid recipients, by basis of eligibility: United States, selected fiscal year 1973-84

Basis of eligibility	1973	1976	1980	1983	1984	Percent increase 1973-84
Total	19,622	22,815	21,605	21,554	21,365	8.9
Aid to Families with Dependent Children:						
Dependent children under age 21	8,624	9,924	9,333	9,535	9,771	13.3
Adults in families with dependent children	4,066	4,773	4,877	5,592	5,598	37.7
Supplemental Security Income:						
Age 65 or over	3,496	3,612	3,440	3,372	3,166	-9.4
Blind	101	97	92	77	80	-20.8
Disabled	1,804	2,572	2,819	2,844	2,870	59.1
Other Title XIX recipients	1,496	1,836	1,499	1,129	1,184	-20.9

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Medicaid Statistics Branch.

Medicare; in 1984, the Medicare disabled and the Medicaid disabled population each numbered about 2.9 million people, with about a 20-percent overlap.

The distribution of Medicaid recipients in 1984, according to whether they were categorically needy or medically needy, is shown in Table 10. Of all Medicaid recipients, States reported that 16.7 million people (74.4 percent) received cash assistance, 2.4 million (10.6 percent) were categorically needy but not receiving cash assistance, and 3.4 million (15.0 percent) were medically needy. Rymer, Burwell, and Madigan (1984) point out that such data must be viewed with caution because of differences in State practices regarding the classification of

institutionalized Medicaid recipients as categorically needy versus medically needy. From these data, it appears that AFDC Medicaid recipients are much more likely to be receiving cash assistance. Of the AFDC Medicaid recipients in 1984, 85 percent of the dependent children and 81 percent of the adults in families with dependent children were reported to have received cash payments. The categorically needy group not receiving cash assistance consists primarily of families who have been terminated for AFDC cash assistance but who receive Medicaid benefits.

Many of the aged become Medicaid recipients for the first time while in nursing homes, because the Medicaid program plays a major role in the financing

Table 10
Medicaid recipients, by basis of eligibility: United States, fiscal year 1984

Basis of eligibility	All Medicaid recipients	Categorically needy		Medically needy
		Receiving cash payments	Not receiving cash payments	
Percent distribution				
Total	100.0	74.4	10.6	15.0
Number in thousands				
Total	21,365	16,662	2,378	3,367
Aid to Families with Dependent Children:				
Dependent children under age 21	9,771	8,314	661	796
Adults in families with dependent children	5,598	4,517	467	614
Supplementary Security Income:				
Age 65 or over	3,166	1,719	667	780
Blind	80	70	5	5
Disabled	2,870	2,216	288	365
Other Title XIX recipients	1,184	0	307	878

NOTE: Columns and rows may not add to total because persons may be classified in different categories during the year.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Medicaid Statistics Branch.

of nursing home care. The 1980 U.S. Census found 4.6 percent of the aged (more than 1.2 million people) in homes for the aged, including nursing and convalescent homes. Today, the average annual cost of nursing home care exceeds \$20,000 per year (Doty and Liu, 1985). Few of the aged have long-term care insurance or the financial resources to cover an extended nursing home stay. In 1984, Medicaid covered 43.4 percent of all nursing home care expenditures. It has been estimated that one-half of these Medicaid outlays were for aged persons who entered nursing homes as private-pay patients, but who exhausted their assets, becoming impoverished and dependent upon Medicaid.

Of the 3.2 million aged Medicaid recipients in 1984, 54 percent were reported to have received cash assistance; of the 80,000 blind and 2.9 million disabled Medicaid recipients, 88 percent and 77 percent, respectively, were reported to have received cash payments (Table 10).

As noted earlier, in addition to the discretion States have in opening up their Medicaid program to certain optional groups and to categorically related, medically needy persons, States have complete latitude for setting the AFDC need standards and payment levels, the basis for cash assistance and hence Medicaid eligibility for families with children. AFDC need standards are income levels set by the State to represent the minimum income that the State determines is necessary for families to subsist; payment standards are what the State actually uses in determining cash awards and are generally lower than the need levels that are set. In 1982, the monthly payment level in Alabama for an AFDC family of two was \$89, the lowest in the Nation; in Alaska, the payment for an AFDC family of two was \$508, the highest in the Nation. As shown in Table 11, the payment level for an AFDC family of two was lower in every State than the SSI payment level for an aged couple. For SSI aged couples, the Federal payment level was \$397; 26 States and the District of Columbia chose to supplement the Federal payment level, with California, Colorado, Alaska, and Massachusetts raising the SSI income level to more than \$600 per month.

The Congressional Budget Office studied the impact of requiring all States to set minimum AFDC benefits at a level sufficient to assure that any family would have cash income plus food stamps equal to at least 65 percent of the Federal poverty guidelines. If such a minimum were to be in effect in 1986, AFDC cash benefits would need to be raised for some or all current recipients in 41 States (Congressional Budget Office, 1985).

Medicare-Medicaid dual enrollees

A substantial proportion, more than 3 million people, or about 15 percent of the Medicare population 65 years of age or over, are also covered by the Medicaid program. More than half a million

people, or about 21 percent of the Medicare population entitled because of disability, are also covered by Medicaid. From a different perspective, nearly all of the Medicaid aged have Medicare Part A entitlement (hospital insurance covers virtually the entire aged population) and an estimated 85 percent of the Medicaid aged have Part B (supplementary medical insurance) primarily through State buy-in agreements; about 20 percent of the Medicaid disabled have Medicare coverage. For these dual enrollees, Medicare is the first payer for those services covered by the Medicare program, and Medicaid is responsible for the Medicare cost-sharing provisions in the form of deductibles and coinsurance. For services that Medicare does not cover, such as drugs and long-term nursing home services, Medicaid has the primary responsibility.

The population dually entitled to both programs (sometimes called the "crossover" population) has been the focus of attention for some time because of the relatively high expenditure levels associated with this group. Because of this group, changes in either program are likely to have an impact on the other. If benefits or eligibility are curtailed under Medicaid, persons also entitled to Medicare may substitute covered Medicare services for those that would otherwise be paid by Medicaid. Similarly, increased cost sharing under Medicare will shift costs to Medicaid for the dually entitled.

The dually entitled aged population are of special interest, because a high proportion of the aged become dually entitled once they become medically needy as a result of requiring long-term nursing home services. Studies of the dually entitled aged population indicated that they were considerably older, with 36 percent of the group 80 years of age or over, compared with 20 percent of all other Medicare enrollees. More than 70 percent of the dually entitled were female, compared with 59 percent for all other Medicare enrollees; 24 percent were persons of races other than white, compared with 6 percent for all other Medicare enrollees without Medicaid entitlement. Morbidity and mortality rates were substantially higher for the dually entitled elderly, compared with all other Medicare enrollees, even when adjusting for age differences.

The elderly living in the community who received cash assistance and were enrolled in Medicare and Medicaid were also found to have poorer health status, much less formal education, and higher use of services than all other Medicare enrollees in the same age groups (McMillan et al., 1983; McMillan and Gornick, 1984). It is likely that for some of the elderly on cash assistance, lower health status in earlier years was a major cause of their lack of educational attainment which resulted in poverty in their old age. For others, the reverse is likely: poverty and low educational attainment in early and mid years have contributed to their higher morbidity and mortality in later years.

Table 11

Monthly payment and income levels of State Medicaid programs for two-person families: 1982

State	AFDC ¹ payment standard two-person family	SSI ² income level for aged couple	Medically needy income level two-person family	Ratio: Medicaid recipients to number in poverty (x100)
Alabama	\$ 89	\$397	(³)	44
Alaska	508	638	(³)	40
Arkansas	133	397	\$158	50
California	408	815	475	110
Colorado	247	674	(³)	46
Connecticut	347	491	417	76
Delaware	197	397	(³)	65
District of Columbia	225	427	436	99
Florida	150	397	(³)	38
Georgia	161	397	(³)	46
Hawaii	390	421	400	101
Idaho	245	444	(³)	35
Illinois	250	467	250	75
Indiana	222	397	(³)	37
Iowa	292	397	(³)	60
Kansas	272	397	390	60
Kentucky	162	397	217	59
Louisiana	125	397	192	44
Maine	223	412	300	95
Maryland	211	397	284	70
Massachusetts	314	611	425	124
Michigan	330	433	434	83
Minnesota	368	441	368	80
Mississippi	188	397	(³)	48
Missouri	199	397	(³)	50
Montana	193	397	265	46
Nebraska	280	534	375	43
Nevada	194	487	(³)	35
New Hampshire	292	413	292	54
New Jersey	273	416	(³)	86
New Mexico	189	397	(³)	38
New York	356	476	483	86
North Carolina	167	397	225	43
North Dakota	270	397	385	38
Ohio	216	397	(³)	67
Oklahoma	218	555	292	61
Oregon	286	407	(³)	87
Pennsylvania	262	446	367	92
Rhode Island	368	485	425	120
South Carolina	102	397	(³)	66
South Dakota	280	412	(³)	31
Tennessee	97	397	133	44
Texas	122	397	(³)	32
Utah	278	417	371	35
Vermont	409	453	479	86
Virginia	203	397	268	51
Washington	339	433	434	70
West Virginia	164	397	225	43
Wisconsin	377	558	542	95
Wyoming	280	437	(³)	29

¹ Aid to Families with Dependent Children.

² Supplemental Security Income.

³ No medically needy program.

NOTE: Recipients are those individuals both eligible for and actually receiving Medicaid services in fiscal year 1980. Because recipients are not necessarily in poverty and vice versa, the percentage reported is not the same as the percentage of people in poverty receiving program benefits.

SOURCES: (Rymer, Burwell, and Madigan, 1984; U.S. General Accounting Office, 1983).

Economic status of the aged

The Medicare and Medicaid programs were enacted to provide access to care for the most vulnerable population subgroups in the Nation. An understanding of the changes in the economic position of these groups is important in assessing future directions of the programs. First we examine the economic status of the aged, then we will address the

economic status of children. The economic position of the elderly has risen considerably in recent decades. The trends in the major economic indicators show substantial overall gains. However, as in other age groups, a wide range exists in the economic status of the elderly, and sociodemographic variables are associated with that range.

In contrast to the near-universal eligibility to the Medicare program on the first day of implementation,

Table 12

Number of persons 65 years of age or over per 1,000 receiving social security benefits and Supplemental Security Income: United States, selected years 1940-83

Year	Social security beneficiaries ¹	Supplemental Security Income
	Number per 1,000 aged	
1940	7	217
1945	62	194
1950	164	224
1955	394	179
1960	616	141
1965	752	117
1970	855	104
1975	904	111
1980	914	87
1982	930	75
1983	935	73

¹Old age survivors and disability insurance.

SOURCE: (Social Security Administration, 1984-85).

eligibility for monthly cash benefits under the social security retirement program came about in a much more gradual way. Social security was enacted in 1935, and monthly cash benefits were first paid in 1940. In that year, 7 out of 1,000 persons 65 years of age or over qualified to receive cash benefits (Table 12). By 1950, 164 out of 1,000 persons were receiving benefits. When Medicare was enacted, 75 percent of the aged were receiving social security retirement benefits. Unlike Medicare, however, which provides a uniform set of benefits to all enrollees, social security cash benefits vary, depending on the number of years in covered employment and the employees' earnings. Trends in the proportion of aged persons who received social security retirement benefits and the proportion of aged persons who received cash assistance from the Supplemental Security Income (SSI) program or earlier assistance programs, for the period 1940-83 are shown in Table 12. As the proportion of aged persons receiving social security rose, the proportion receiving welfare payments under SSI declined.

Although 75 percent of the aged were receiving social security retirement benefits in 1965, when the

Medicare legislation was enacted, the aged as a group were in much poorer economic circumstances than the Nation as a whole. Measured by the official poverty index, based on the cost of a minimum but nutritionally adequate diet, 29 percent of the noninstitutionalized aged in 1966 were living in poverty, compared with 15 percent of the total population (Table 13). The relatively high level of poverty among the aged, their higher-than-average incidence of illness and disability, and their inadequate private health insurance coverage (which threatened financial ruin if they experienced a serious illness and hospitalization) were the compelling reasons for amending the Social Security Act to include health insurance coverage.

Between 1959 and 1969, the poverty level fell for the Nation as a whole (from 22 to 12 percent) and for the aged as a group (from 35 to 25 percent). After 1969, the poverty level for the aged continued downward, reaching the overall level for the Nation in 1982 (15 percent), and, in 1984, at 12 percent, measured 2 percentage points below the national average. The series of substantial increases in social security cash benefits enacted during the late 1960's up through 1974 (February 1968, 13 percent; January 1970, 15 percent; January 1971, 10 percent; September 1972, 20 percent; and June 1974, 11 percent), and the automatic cost-of-living adjustment to social security cash benefits, beginning January 1975, were clearly instrumental in reducing the poverty level among the aged. Although the proportion of the aged who were under the poverty level has improved dramatically, the absolute number of aged persons living in poverty (3.3 million people) was still substantial in 1984 because of the growth in the aged population (Table 13).

The role the social security program plays in the general economic position of the aged is reflected in Table 14, which shows the types of income received in 1983, whether from earnings, social security, supplemental security income, private pensions, or other programs or sources; and the distribution of income by type.

The data are categorized into family units consisting of an aged individual living alone or of multiperson families headed by a person 65 years of age or over,

Table 13

Number and percent poor of total persons all ages and persons 65 years of age or over: United States, selected years 1959-84

Year	Persons all ages			Persons 65 years or over		
	Total in millions	Poor in millions	Percent poor	Total in millions	Poor in millions	Percent poor
1959	177	39.5	22	16	5.5	35
1966	193	28.5	15	18	5.1	29
1969	200	24.3	12	19	4.8	25
1976	212	25.0	12	22	3.3	15
1980	225	29.3	13	25	3.9	16
1981	227	31.8	14	25	3.9	15
1982	229	34.4	15	26	3.8	15
1983	232	35.3	15	26	3.7	14
1984	234	33.7	14	27	3.3	12

SOURCE: (Social Security Administration, 1984-85).

Table 14
Shares of money income from earnings and other sources for aged families: 1983

Type of money income received during year	Aged family units					
	Individuals age 65 or over living alone or with nonrelatives only			Multiperson families with householder age 65 or over		
	Total	Nonpoor	Poor	Total	Nonpoor	Poor
	Number in millions					
Families and unrelated individuals	8.6	6.3	2.3	9.7	8.8	0.8
	Amount					
Mean household income	\$10,037	\$12,379	\$3,528	\$21,419	\$23,013	\$4,670
	Percent receiving income					
Earnings	13	16	6	43	45	20
Public program payments:						
Social security	92	94	86	94	94	87
Supplemental Security Income	11	4	30	6	5	23
Other public assistance	1	(1)	1	1	1	7
Other programs	6	6	7	10	10	11
Other sources:						
Dividends, interest, rent	68	79	36	76	80	35
Private pension, annuities, other	31	39	7	48	52	11
	Percent distribution of income					
Total	100	100	100	100	100	100
Earnings	10	11	1	28	28	3
Public program payments:						
Social security	44	41	77	34	33	73
Supplemental Security Income	2	1	14	1	1	9
Other public assistance	(1)	(1)	(1)	(1)	(1)	4
Other programs	1	1	2	1	1	4
Other sources:						
Dividends, interest, rent	29	31	4	21	21	4
Private pension, annuities, other	14	15	2	15	15	4

¹ Less than 0.05 percent

SOURCE: (Social Security Administration, 1984-85).

and divided into "nonpoor" and "poor" units. In 1983, the poverty threshold for the aged was \$4,775 for individuals and \$6,023 for two-person families (U.S. Bureau of the Census, 1985).

In households consisting of one aged individual, 92 percent received social security cash benefits and 11 percent received SSI; in multiperson families headed by an aged person, 94 percent received social security cash benefits and 6 percent received SSI. The lower bank of figures shows that social security accounted for 44 percent of total income for individuals and 34 percent for multiperson units.

In poorer family units consisting of one individual, social security was the predominant source of income, accounting for 77 percent of total income. For these individuals, social security benefits provided, on average \$2,717 of the \$3,528 total income; supplemental security income added a small amount, accounting for 14 percent of the income of poor individuals or, on average, \$494 of total income.

After social security, the next most important source of income for nonpoor aged individuals was from capital investments, that is, dividends, interest, and rents (31 percent); for nonpoor multiperson units, it was from earnings (28 percent). Private pensions and annuities accounted for only 15 percent of total

income for nonpoor family units. For poor family units, income from private pensions was virtually nonexistent, accounting for 2-4 percent of total income.

These data suggest that certain sociodemographic factors are associated with the economic status of the elderly. Among aged persons living alone, 2.3 million of the 8.6 million people (27 percent) were living in poverty, whereas only 0.8 million (8 percent) of the 9.7 million multiperson units were poor. Vital statistics for the United States show that women currently outlive men by about 7 years; hence, women are much more likely than men to spend some of their final years living alone and living in poverty. Using the same source, the Social Security Administration (1984-85) developed further breakdowns by sex and race that show 43 percent of all aged women live alone, compared with only 17 percent of men. Women make up 59 percent of the general population, but they account for 71 percent of the total living in poverty (3.7 million aged).

The economic position of the aged is also associated with race. In 1983, of all aged black people living alone (0.8 million), 50 percent were living in poverty; of all aged white people living alone (7.8 million), 23

percent were living at or below the poverty level (Social Security Administration, 1984-85).

As noted earlier, the population 65 years of age or over spans a range of some 30-35 years. Age itself plays a role in the economic status of the elderly. For men and women, married or nonmarried, there is a substantial drop in income as age increases. In 1982, the median income for all aged married couples was \$15,130; for the youngest group, couples 65-67 years of age, the median income was \$17,930; for couples 80 years of age or over, the median income was only \$11,070. For nonmarried aged persons, the corresponding figures were \$5,880 for the total, \$6,920 for those 65-67 years of age, and \$5,360 for those 80 years of age or over (Grad, 1984). The relatively favorable economic status of the younger elderly is related to a variety of factors, including higher social security benefits and greater likelihood of private pensions. Additionally, because they have been in retirement a relatively short time, the likelihood of drawing down their assets is much lower than it would be for people who are 80 years of age or over.

No one social indicator provides full insight into the status of population subgroups. The poverty index was originally developed to conform to the annual March Current Population Survey sample of the U.S. Bureau of the Census which collected data only on cash or money income. Therefore, the index is a measure of money income only. Nonmoney income is not currently considered in calculating the poverty thresholds and hence does not reflect the fact that many families receive part of their income in kind, in the form of nonmoney transfers such as food stamps, subsidized housing, and health benefits. Beginning in March 1980, the Census Bureau began supplementing data on annual family money income with information on the number receiving certain selected noncash benefits; they are examining procedures for assigning a money value to each benefit.

The poverty index as a measure of income adequacy for the elderly also has other shortcomings, because the aged often do not have the same kinds of obligations as younger persons and, although not counted as income, most older Americans (including 65 percent of the elderly poor) own their homes and live there until they die. Their homes embody their independence and symbolize a lifetime of labor and family living. Public policy analysts and researchers have been looking for acceptable ways to "unlock" these assets so that the elderly can remain in their homes as long as they live, but can also use some of their home equity to add to their income to support improved nutrition, personal care needs, or any other uses that could enhance the quality of their lives (Scholen, 1984; Jacobs and Weissert, 1984; Weinrobe, 1984).

A final point about the economic status of the elderly involves the growing trend of early retirement. Data on early retirement from the Social Security Administration (SSA) indicate that, in 1982, of the total 1.6 million new awards made to retired workers

62 years of age or over, 1.2 million (74 percent) were reduced because they were made to workers between 62 and 65 years of age. Thus, three-fourths of the aged apply for retirement benefits before age 65. Of the new awards made to retired workers, 39 percent were for persons 62 years of age (Social Security Administration, 1983).

Although these early retirees are eligible for social security cash benefits, they do not qualify for Medicare until age 65. Therefore, there is a potential gap in health insurance coverage between retirement and age 65 for this group. This problem is further complicated by the fact that many early retirees retire because of poor health. An SSA survey in 1981 of newly retired workers indicates that, in general, individuals who first receive social security retired-worker benefits view themselves as being in good health. However, 32 percent indicated that they can no longer work, or they could work only part time or occasionally. Beneficiaries whose first monthly benefits were claimed at age 62 were more likely to report themselves in poor health than those receiving a first benefit at age 63 or over. Among those newly retired workers 62 years of age, about two-fifths reported they could not work any longer or could work only part time or occasionally (Packard, 1985). Thus, the poor health of many early retirees may make it difficult to obtain adequate health insurance coverage.

Economic status of children

The number of children in the Nation living at or below the poverty level, for selected years between 1959 and 1984, is shown in Table 15. In 1959, there were 64.0 million children under age 18. Of the total, 17.2 million children (27 percent) were at or below the poverty level. In 1969, the number and percent of children living in poverty fell, reaching 9.8 million (14 percent). Between 1969 and 1983, the number and percent of children living in poverty increased, with the figure in 1983 reaching 13.3 million (22 percent). These children constituted nearly 40 percent of all poor people, and they and the adults with whom they lived represented more than two-thirds of the poverty population in the Nation (Congressional Budget Office, 1985). In 1984, poverty figures for children declined, the number falling to 12.9 million or 21 percent of the total.

Female-headed households are highly correlated with poverty. In 1984, about one out of five children under age 18 lived in female-headed households. Of the children living in these households, 54 percent were living at or below the poverty level, more than four times the rate in male-headed households.

Race and ethnicity are also highly correlated with poverty. In 1983, 47 percent of all black children and 38 percent of all Hispanic children under 18 years of age were poor, compared with 15 percent of all nonminority children. Among minority children in female-headed households, about 7 out of 10 were poor (Congressional Budget Office, 1985).

Table 15
Number of children under 18 years of age and number and percent poor, by family head:
United States, selected years 1959-84

Year	Number of children under 18 years in millions			Number poor in millions			Percent poor		
	Total	Family head		Total	Family head		Total	Family head	
		Male	Female		Male	Female		Male	Female
1959	64.0	58.3	5.7	17.2	13.1	4.1	27	22	72
1966	69.9	62.7	7.2	12.1	7.9	4.2	17	13	58
1969	69.8	61.7	8.1	9.8	5.4	4.4	14	9	54
1976	63.7	53.0	10.7	10.1	4.5	5.6	16	9	52
1980	62.2	50.6	11.5	11.1	5.2	5.9	18	10	51
1981	61.7	49.7	12.0	12.1	5.8	6.3	20	12	52
1982	61.6	49.6	11.9	13.1	6.4	6.7	21	13	56
1983	61.4	49.3	12.1	13.3	6.6	6.7	22	13	55
1984	61.7	49.2	12.5	12.9	6.2	6.7	21	13	54

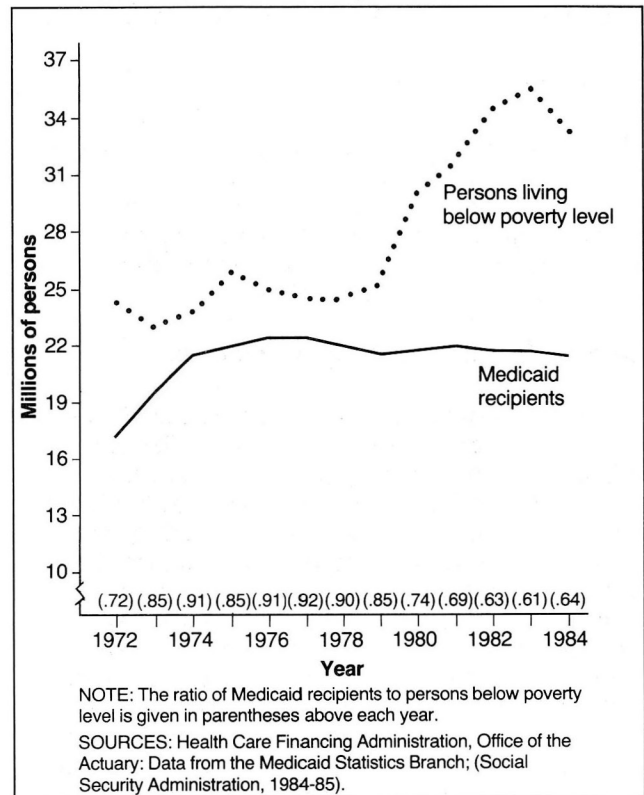
SOURCE: (Social Security Administration, 1984-85).

A rough gauge of the extent to which Medicaid covers the poverty population of all ages is the comparison between the number of Medicaid recipients and the number of persons below the poverty level. These measures are shown for the period 1972-84 (Figure 1). The gap between these two measures has been widening since 1978. The ratio of these two numbers reached a peak in 1977 (.92) and then began to decline. The ratio of these two measures for each State is given in Table 11.

The 1980 National Medical Care Utilization and Expenditure Survey (NMCUES) of the noninstitutionalized population collected information about the insurance status of the U.S. population by income level and by age. NMCUES data indicate that there were 25 million people in 1980 living at or below the poverty level. Of these, 49 percent were covered by Medicaid, 36 percent were not covered by Medicaid but were otherwise insured, and 15 percent were not insured. Of the poor under 19 years of age, 59 percent were covered by Medicaid, 28 percent were not covered by Medicaid but were otherwise insured, and 13 percent were uninsured (Kasper, 1985). In these figures, "coverage" by Medicaid or other insurance means that the individual was covered all or part of the year by Medicaid or other insurance. The 1977 National Medical Care Expenditure Survey (NMCES) found that, of persons "covered" by Medicaid, 43 percent were covered only part of the year; of those covered only part of the year, 64 percent were uninsured in the months they were not covered by Medicaid (Walden, Wilensky, and Kasper, 1985). Thus, the 1980 NMCUES estimate of the extent of Medicaid coverage should be viewed with the understanding that a substantial number of these individuals may be uninsured for part of the year.

Beginning in 1980, an ongoing gauge of the extent of Medicaid coverage of the poverty population became available when the March Current Population Survey (CPS) began to collect information about Medicaid coverage in the previous year for persons below the poverty level. The Survey found that in 1980, of the 28.4 million persons below the poverty

Figure 1
Number of Medicaid recipients and
number of persons below poverty level:
United States, 1972-84



level, 11.1 million (39.1 percent) had Medicaid coverage sometime during the year. In 1981, the figure was 37.8 percent, and, in 1982, 37.9 percent. Data for 1983, the latest available, indicate that of the total population living below the poverty level, 38.7 percent had Medicaid coverage sometime during the year. Thus, since 1980, estimates from the CPS on the proportion of the poor with Medicaid coverage sometime during the year ranged between 37.8 and 39.1 percent (U.S. Bureau of the Census, 1985).

Table 16
Aged beneficiaries use of Medicare hospital insurance benefits, by age, sex, and race:
1967 and 1983

Age, sex, and race	Persons served per 1,000 enrollees						Percent change 1967-83		
	1967			1983			Hospital	Skilled nursing facility	Home health agency
	Hospital	Skilled nursing facility	Home health agency	Hospital	Skilled nursing facility	Home health agency			
Total	185	18	7	242	10	46	31	-47	608
Age									
65-69 years	149	6	4	184	3	21	24	-59	486
70-74 years	171	11	6	223	5	35	31	-52	524
75-79 years	206	22	8	267	10	55	29	-54	572
80-84 years	240	40	11	312	18	78	30	-54	630
85 years or over	275	61	12	344	32	98	25	-48	691
Sex									
Male	198	15	5	251	7	40	27	-51	641
Female	175	20	7	235	11	50	34	-45	586
Race									
White	189	19	7	244	10	45	30	-47	594
All other	138	7	5	220	7	57	59	-2	983

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

Use of services

The following discussion provides a broad overview of the use of program services by beneficiary characteristics, including trends in the use of the Medicare hospital insurance and supplementary insurance benefits, use of services by the ESRD population, and use of Medicaid benefits.

Medicare hospital insurance benefits

The use of hospital insurance (Part A) benefits by aged Medicare beneficiaries for 1967 and 1983 are shown in Table 16. The primary Part A benefit is inpatient hospital care. The initial impact of Medicare was greater utilization of short-stay hospitals by the aged. During Medicare's first year, the number of hospital stays and the average length of stay for the aged increased 4-8 percent over the previous year (Pettengill, 1972); however, there had been a general upward trend in hospital use by the aged since 1950. In 1967, the first full year of Medicare coverage, 185 persons per 1,000 enrollees were hospitalized at least once. The user rate (defined as the number of persons per 1,000 enrollees with a reimbursed service) increased directly with age, from 149 persons per 1,000 enrollees 65-69 years of age to 275 persons per 1,000 enrollees 85 years of age or over. Traditionally, age has also had a significant impact on average length of stay, with the duration of the hospital stay for the oldest age group approximately 2-3 days longer than for the youngest age group. Since 1967, there has been a steady increase in the rate of hospitalization; by 1983, the rate was 31 percent higher, with 242 persons hospitalized per 1,000 aged enrollees. Although a small part of the overall

increase can be attributed to the gradual aging of the population, the hospitalization rate increased across all age, sex, and race groups (Table 16). The difference in the hospitalization rates between males and females, and between white people and all other races, narrowed during these years.

In addition to the increase in the percent of persons hospitalized, an increase has occurred in the number of multiple hospitalizations (Lubitz and Deacon, 1982). In 1967, there were an average of 1.38 hospitalizations per person hospitalized. By 1977, this figure had risen to 1.48. As a result, the discharge rate (total discharges per 1,000 enrollees) increased even faster than the percent of persons hospitalized. In 1967, there were 268 discharges per 1,000 enrollees; about one-third of the discharges were surgical cases and two-thirds were medical cases. By 1983, the discharge rate increased 42 percent, to 381 discharges per 1,000 (Table 17). The rise in the discharge rate reflected a rise in the rate of both surgical and medical cases.

Although the discharge rate has shown a steady increase since Medicare's inception, the average length of stay for nearly all types of conditions decreased at a proportional rate, declining from a high of 13.5 days in 1969 to 9.6 days in 1983. Consequently, total days of care per 1,000 enrollees have remained at relatively the same level (3,500-3,950 days per 1,000 enrollees).

During this same time period, the hospital discharge rate also increased for the non-Medicare population 45-64 years of age, although the rate of increase was less than for the aged. Length of stay for the general population also declined (Lubitz and Deacon, 1982).

Use of hospital services by the Medicare population is a major factor in the hospital sector. In 1983, the

Table 17

Aged beneficiaries use of Medicare inpatient hospital and skilled nursing facility services: 1967-83

Year	Number of Part A aged enrollees in millions July 1	Short-stay hospital			Skilled nursing facility			
		Number of discharges in millions	Number of days of care in millions	Average length of stay in days	Number of discharges per 1,000 enrollees	Number of days of care per 1,000 enrollees	Number of days of care in millions	Number of days of care per 1,000 enrollees
1967	19.5	5.2	68.5	13.1	268	3,513	—	—
1968	19.8	5.6	75.6	13.4	285	3,823	—	—
1969	20.0	5.9	79.0	13.5	292	3,947	17.6	878
1970	20.4	6.0	77.4	13.0	292	3,800	10.7	525
1971	20.7	6.1	76.1	12.5	294	3,670	7.5	361
1972	21.1	6.4	77.2	12.1	302	3,656	6.6	314
1973	21.6	6.8	79.0	11.7	313	3,661	8.5	395
1974	22.0	7.0	80.9	11.5	320	3,677	8.7	395
1975	22.5	7.3	81.6	11.2	324	3,631	8.6	382
1976	22.9	7.6	84.4	11.1	332	3,684	9.4	410
1977	23.5	7.9	87.0	11.0	334	3,705	9.3	396
1978	24.0	8.1	88.6	10.8	339	3,692	8.6	360
1979	24.5	8.5	91.2	10.7	345	3,717	8.0	328
1980	25.1	9.1	96.8	10.8	361	3,855	8.0	318
1981	25.6	9.4	98.2	10.4	367	3,838	8.3	323
1982	26.1	9.8	100.4	10.2	376	3,846	8.4	322
1983	26.7	10.2	99.7	9.6	381	3,740	8.8	329

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

Medicare population (aged and disabled combined) accounted for 12 percent of the total U.S. population, yet accounted for 31 percent of hospital admissions and 41 percent of total days of care (Fitzmaurice, 1985). Therefore, Medicare practices and policies clearly have a major impact on the hospital system.

Increasing rates of hospitalization could be indicative of better access to health care for the aged. However, higher rates are not necessarily known to be optimal use rates. Because of this, considerable attention has been focused on the wide regional variations in Medicare hospital use. Across census regions and within small areas as well, large differences have persisted over time in hospital discharge rates, average lengths of stay, and annual Medicare reimbursements per enrollee for inpatient hospital care; these variations cannot be explained by differences in age, sex, or race of the residents in the areas (Gornick, 1982). The primary cause of these differences in practice patterns has been attributed to "professional uncertainty" about the optimal or appropriate use of certain medical and surgical procedures (Wennberg, Barnes, and Subkoff, 1982).

To encourage cost-effective use of inpatient hospital care, the Part A program was designed to include skilled nursing facility (SNF) and home health agency (HHA) services. The criterion for SNF coverage under Medicare is the medical necessity for the patient to receive post-hospital skilled nursing, convalescent, and rehabilitative services for restoration to maximum functional capacity.

Use of the SNF benefit is limited to persons with at least a 3-day hospitalization and must begin within 30 days of discharge (14 days was the requirement prior to 1981). The use rate of SNF's over time is shown in Table 16. In 1967, 18 persons per 1,000 enrollees had

at least one Medicare covered SNF stay. Females had higher use rates than males, and white people had higher use rates than all other races. Use of the SNF benefit increases sharply with age; persons 85 years of age or over are 10 times more likely to have an SNF stay than those 65-69 years of age. Since 1967, the use of the SNF benefit under Medicare has almost halved (10 per 1,000 in 1983). The decrease has been consistent across age and sex groups. However, SNF use among all races other than white has remained unchanged. The decline in the use of the SNF benefit has been attributed to a more stringent application of the medical necessity criterion. When Medicare was first implemented, about 1 out of 16 hospital stays was followed by a Medicare covered SNF admission. By the early 1980s, only 1 out of 30 hospitalizations resulted in a Medicare covered SNF admission.

In terms of SNF days per 1,000 enrollees, the decrease has been even larger (Table 17). In 1969, Medicare aged persons used 878 covered days per 1,000 enrollees, but in 1983, they used only 329 days per 1,000 enrollees. Although Medicare covers up to 100 days in an SNF per episode of illness, the average number of covered days per user was only about 30 days.

Use of HHA care is also shown in Table 16. In 1967, 7 persons per 1,000 used this benefit under the Part A program. By 1983, the rate had risen to 46 per 1,000, a 608-percent increase. Part of this increase can be attributed to the fact that HHA services were available under the Part A and Part B programs until the 1981 amendments, which eliminated the prior hospital stay requirement under Part A and made HHA services virtually a Part A benefit only. From 1982 on, HHA services were only covered under Part B for persons without Part A coverage. Still, much of

Table 18

**Disabled beneficiaries use of Medicare hospital insurance benefits, by age, sex, and race:
1974 and 1983**

Age, sex, and race	Persons served per 1,000 enrollees						Percent change 1974-83		
	1974			1983			Hospital	Skilled nursing facility	Home health agency
	Hospital	Skilled nursing facility	Home health agency	Hospital	Skilled nursing facility	Home health agency			
Total	206	4	8	250	3	31	21	-34	292
Age									
Under									
35 years	138	1	3	191	1	14	39	-31	324
35-44 years	164	2	5	208	2	22	27	-11	360
45-54 years	197	3	7	254	2	27	29	-34	294
55-59 years	230	5	10	262	3	33	14	-39	247
60-64 years	239	6	11	281	4	43	18	-34	302
Sex									
Male	195	4	6	231	2	25	19	-37	298
Female	226	5	11	282	4	42	25	-34	283
Race									
White	212	4	8	251	3	30	18	-36	283
All other	172	3	8	244	2	36	42	-19	327

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

the increase occurred prior to the 1981 legislative changes. HHA use increases with age; persons 85 years of age or over are 4½ times more likely to use this service than persons 65-69 years of age. Also, females are more likely to use home health services than are males. In 1967, white people had higher use rates than did all races other than white. However, by 1983, this pattern had been reversed (45 users per 1,000 for white people and 57 users per 1,000 for all other races).

Part A utilization trends among the disabled have paralleled those of the aged. User rates for the disabled for the years 1974 and 1983 are shown in Table 18. As with the aged, the use of hospital inpatient care increased over the years, from 206 per 1,000 enrollees hospitalized in 1974 to 250 per 1,000 in 1983. In 1983, the overall rate for the disabled (250 per 1,000) was close to the rate for the aged (242 per 1,000).

Between 1974 and 1983, the discharge rate for the disabled rose at a rate of 4.0 percent per year. This was considerably faster than the 2.0 percent annual increase in the discharge rate among the aged during the same time. Both aged and disabled persons experienced similar rates of decline in average lengths of stay. The net result is that, although the days of care per 1,000 did not change much for the aged between 1974 and 1983, the rate for the disabled increased 22 percent from 3,446 days per 1,000 in 1974 to 4,206 days per 1,000 in 1983 (Table 19).

Use of the SNF benefit is even less common among the disabled than among the aged (Tables 16 and 18). In 1983, only 3 persons per 1,000 disabled enrollees received SNF benefits, compared with 10 per 1,000 among the aged. For those persons who did use services, the average number of reimbursed SNF days

was approximately 30 days, similar to that received by aged SNF users.

Use of HHA services by the disabled has been increasing, as it has for the aged, but at a lesser rate. In 1974, the user rates for HHA services for the disabled was 8 per 1,000; in 1983, it was 31 per 1,000 for the disabled, compared with 46 per 1,000 for the aged.

Medicare supplementary medical insurance benefits

The supplementary medical insurance (Part B) benefit, although a voluntary part of the Medicare program which requires a monthly premium, has covered about 97 percent of the aged each year. National surveys of the noninstitutionalized population in the United States in 1958 and 1963 showed that 68 percent of aged persons saw a physician during a year. In 1970, the rate had risen to 76 percent and, by 1980, to 82 percent (Andersen, Lion, and Anderson, 1976; National Center for Health Statistics and Health Care Financing Administration, 1980). Even though the proportion of aged persons seeing a physician increased after Medicare, the average number of visits per person declined, continuing a generally downward trend from 1958, when aged persons averaged 7.4 visits per year. Visits per person declined to 6.8, 6.4, and 6.0 visits per person in the years 1963, 1970, and 1976, respectively. In 1980, however, the rate went up to 6.7.

The use of Part B benefits by the aged population for the years 1967 and 1983 are shown in Table 20.

Table 19
Disabled beneficiaries use of Medicare inpatient hospital and skilled nursing facility services: 1974-83

Year	Number of Part A disabled enrollees in millions July 1	Short-stay hospital				Skilled nursing facility			
		Number of discharges in millions	Number of days of care in millions	Average length of stay in days	Number of discharges per 1,000 enrollees	Number of days of care per 1,000 enrollees	Number of days of care in millions	Number of days of care per 1,000 enrollees	
1974	1.9	.6	6.6	11.1	309	3,446	.3	144	
1975	2.2	.7	7.7	10.7	330	3,544	.3	133	
1976	2.4	.9	9.0	10.5	359	3,780	.3	132	
1977	2.6	1.0	9.9	10.3	366	3,764	.3	128	
1978	2.8	1.1	10.8	10.0	388	3,872	.3	113	
1979	2.9	1.2	11.2	10.0	400	3,858	.3	108	
1980	3.0	1.2	12.4	10.0	414	4,186	.3	106	
1981	3.0	1.3	12.6	9.9	427	4,267	.3	101	
1982	3.0	1.3	12.6	9.8	437	4,271	.3	98	
1983	2.9	1.3	12.3	9.6	440	4,206	.3	101	

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

Table 20
Aged beneficiaries use of Medicare supplementary medical insurance benefits, by age, sex, and race: 1967 and 1983

Age, sex, and race	Persons served per 1,000 enrollees						Percent change 1967-83		
	1967			1983			Physician services	Outpatient services	Home health agency
	Physician services	Outpatient services	Home health agency	Physician services	Outpatient services	Home health agency			
Total	359	58	7	655	307	0.7	83	425	(¹)
Age									
65-69 years	316	56	3	588	279	0.5	86	396	(¹)
70-74 years	348	60	5	636	301	1.1	83	403	(¹)
75-79 years	387	62	8	689	321	1.3	78	422	(¹)
80-84 years	414	58	12	729	334	0.3	76	475	(¹)
85 years or over	446	55	19	767	356	0.1	72	548	(¹)
Sex									
Male	346	60	4	624	297	0.4	80	392	(¹)
Female	368	57	8	675	313	1.0	83	450	(¹)
Race									
White	367	58	7	661	305	0.6	80	430	(¹)
All other	246	72	6	599	327	2.5	143	355	(¹)

¹ Not applicable. Beginning 1982, the home health agency benefit was included under Part A except for Medicare enrollees with Part B only.

SOURCES: (Social Security Administration, 1971); Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

To qualify for Part B reimbursements, a beneficiary must first meet a deductible amount. The deductible was set at \$50 in 1967 and raised to \$60 in 1973 and to \$75 in 1982. In 1967, although an estimated 75-80 percent of aged enrollees used physician services, only about 36 percent (359 persons per 1,000 enrollees) met the deductible and received Medicare reimbursements for physicians' services. The proportion receiving reimbursements rose with age, was higher for females than for males, and was substantially higher for white people than for all other races.

The user rate for physicians' services climbed steadily in the year following 1967. By 1983, the overall user rate was 655 per 1,000. Some of this

increase can be attributed to the fact that the deductible was not indexed to inflation, thus making it easier as time went by to qualify for Medicare reimbursements. Over time, the increase in the user rate was similar across all age and sex groups. Growth in the use of physicians' services probably reflected the growth of hospitalization under Medicare as well. Claims data indicate that about 60 percent of Part B reimbursements for physician care are for services rendered to persons during hospital stays.

In 1967, as shown in Table 20, there were marked differences by race in the user rate for physicians' services. In the first year of the program, the user rate among white people (367 per 1,000) was 49 percent

higher than among people of all other races (246 per 1,000). Davis (1975) found that in 1968, the second full year of the program, there were still wide disparities by race. Over time, however, the disparity in the user rate fell each year, from 49 percent higher for white people in 1967, to 23 percent higher in 1973, to 16 percent higher in 1976 (Ruther and Dobson, 1981). By 1983, the discrepancy in the rate for white people and all other races had decreased to 10 percent (661 per 1,000 and 599 per 1,000, respectively). In-depth studies of the use of health care services by demographic characteristics indicate that, overall, noteworthy decreases have occurred in disparities by race and by ethnicity since the inception of the Medicare and Medicaid programs (O'Brien, Rodgers, and Baugh, 1985; Long and Settle, 1984).

Similar to the wide variations found in Part A utilization and charges, year after year, Part B use and reimbursement rates have varied considerably by geographic area and by State (Gornick, Hackerman, and Newton, 1980). Geographic differences in reimbursements reflect, in part, the present Part B reimbursement mechanism, which is based on customary and prevailing charges in local areas.

In discussing the use of physicians' services under Medicare, it is important to note that under Part B, the physician decides whether or not to accept assignment of claims on a claim-by-claim basis. When assignment is accepted, the physician agrees to accept Medicare's allowed charge as full payment. Physicians' acceptance of assignment is of considerable importance in relieving the beneficiary of the burden of additional medical care costs. If physicians do not accept assignment, the beneficiary is responsible for the difference between the physician's charge and the Medicare allowed charge. In the early years of the Medicare program, the proportion of claims that were assigned was about 60 percent nationally. Beginning in 1971, the assignment rate began a slow and steady decline, reaching a low of about 50 percent in 1978. After 1978, the assignment rate began to slowly rise, reaching nearly 54 percent in 1983.

In 1984, the Deficit Reduction Act (DEFRA) established the concept of participating physicians, those who voluntarily agree to accept assignment for all services provided to Medicare beneficiaries for a year; the assignment rate jumped 5 percentage points to 59 percent in 1984 and reached 69 percent as of September 1985. It should be observed, however, that traditionally there have been extreme variations in assignment rates by State (Ferry et al., 1980). In 1982, 87 percent of physician charges were assigned in Rhode Island, whereas only 17 percent were assigned in South Dakota. In addition, assignment rates vary considerably by characteristics of the physician, the beneficiary, and the type of service rendered (Rice and McCall, 1983; Mitchell and Cromwell, 1981). Because of increases in the amount physicians' charges are reduced, an unassigned claim now has a much greater potential impact on the Medicare beneficiary than it did in earlier years of the program. In 1973, Medicare

reduced physicians' charges by an average of 12.2 percent; in 1975, charges were reduced an average of 17.4 percent; in 1982, the percent reduction averaged 23.7 percent (McMillan, Lubitz, and Newton, 1985). Thus, on average, an unassigned claim now means that the beneficiary is responsible for about one-fourth of the physicians' charges in addition to the deductible and 20-percent coinsurance requirements.

The second major Part B benefit is outpatient services. Outpatient services include clinic, emergency room, and ancillary services in a hospital outpatient department and services in freestanding facilities. In 1967, the outpatient benefit was used relatively infrequently; 58 aged persons per 1,000 enrollees received payments for use of outpatient services under Part B (until April 1968, diagnostic outpatient services were covered under Part A). By 1983, the rate had increased, by a factor of five, to 307 per 1,000 enrollees, an average annual increase of more than 10 percent. In 1983, little difference existed in use rates by sex and race, and there was only a small increase by age.

It is important to stress that, except for physicians' services, a minority of the Medicare enrollees use Medicare benefits in any 1 year. As shown earlier, only 24 percent of beneficiaries are hospitalized in a year. Increasing age is a factor clearly related to increasing use of inpatient hospital, SNF, HHA, and physicians' services under Medicare. Studies of certain subgroups of the population shed additional light on the use of services under Medicare. Lubitz and Prihoda (1984) showed that the use of services rises greatly in the last year of life. Not unexpectedly, the probability of being hospitalized in the last year of life and in the next to the last year is much greater than the overall average. McMillan et al. (1983) and McMillan and Gornick (1984) showed that the aged population with dual enrollment in Medicare and Medicaid were also at much higher risk of being hospitalized, probably because of their poorer health status.

Use of Part B benefits by the disabled is shown in Table 21. As with the aged, use of physician services has been steadily rising, from 396 disabled persons per 1,000 enrollees in 1974 to 639 per 1,000 in 1983. For physicians' services, use rises with age, and is higher among females and white people, although the difference by race decreased over time.

An even faster increase in the use of outpatient services by the disabled has occurred. User rates increased from 170 persons per 1,000 enrollees in 1974 to 382 per 1,000 in 1983, an annual increase of 9.4 percent. In 1983, the rate of use of outpatient services by the disabled (382 per 1,000) was markedly higher than for aged persons (307 per 1,000).

Services used by ESRD population

Utilization rates for ESRD beneficiaries take on different meanings than for aged and disabled beneficiaries. The aged and disabled have about a

Table 21

Disabled beneficiaries use of Medicare supplementary medical insurance benefits, by age, sex, and race: 1974 and 1983

Age, sex, and race	Persons served per 1,000 enrollees						Percent change 1974-83	
	1974			1983			Physician services	Outpatient services
	Physician services	Outpatient services	Home health agency	Physician services	Outpatient services	Home health agency		
Total	396	170	5	639	382	61	125	
Age								
Under 35 years	265	139	4	532	376	101	171	
35-44 years	313	152	4	571	376	83	148	
45-54 years	379	172	5	635	393	68	129	
55-59 years	447	185	6	652	380	46	105	
60-64 years	454	177	6	705	380	55	115	
Sex								
Male	357	155	4	586	345	64	123	
Female	463	196	8	728	442	57	125	
Race								
White	409	166	5	644	373	58	124	
All other	326	193	6	612	426	87	121	

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

24-percent probability of being hospitalized and a 65-percent chance of exceeding the Part B deductible and receiving benefits. The fact of renal failure itself ensures that these individuals must receive renal dialysis or a kidney transplant, or they will die. Thus, virtually 100 percent of the ESRD population are users of Medicare benefits. Most ESRD beneficiaries receive dialysis treatment on a routine basis (two to three times a week); transplanted patients are large users in the year that the transplant occurs. Nevertheless, there have been significant changes in the volume and types of services used by ESRD patients.

In 1972, about 40 percent of all dialysis patients were dialyzing at home. This figure decreased rapidly after ESRD patients were covered under Medicare. By 1979, the proportion of home dialysis patients was only 9 percent. The decline in patients dialyzing at home is partly explained by the fact that Medicare coverage expanded the universe of patients considered appropriate for treatment. More older, poorer, and sicker patients were being treated than had been previously. Many of these patients were not considered to be good candidates for home hemodialysis. In addition, Medicare reimbursement regulations in effect at the beginning of the program (1973) did not cover the entire costs of home dialysis, thus biasing treatment decisions toward in-unit dialysis. This bias was removed with the Medicare ESRD Amendments of 1978. However, home dialysis has not returned to the pre-Medicare levels.

In 1979, a new dialysis treatment therapy was introduced, known as continuous ambulatory peritoneal dialysis (CAPD). This new form of dialysis gives the dialysis patient greater freedom of movement and comfort. As shown in Table 22, there has been a

considerable change in dialysis patterns in the past 5 years. In-unit hemodialysis remains the predominant form of dialysis, although the percentage of in-unit dialysis patients dropped slightly from 83 percent in 1980 to 80 percent in 1984. Home hemodialysis has continued to decrease, from 9 percent in 1980 to 5 percent in 1984. Meanwhile, CAPD has increased from just 4 percent of the dialysis population in 1980 to 14 percent in 1984.

The other major treatment of ESRD is kidney transplantation. Since the beginning of Medicare coverage, the major constraint on this therapy has been the supply of cadaver kidneys for transplantation. Nevertheless, the number of transplants has grown substantially since 1974, rising from 3,190 transplants in 1974 to 6,968 transplants in 1984, reflecting an annual growth rate of 8.1 percent. However, in 1983 and 1984, the growth of transplants accelerated at a rapid pace (14.1 percent and 14.0 percent, respectively) as shown in Table 23.

One factor that should have a major impact on transplantation is the Food and Drug Administration approval in November 1983 of the drug cyclosporine as an immunosuppressant for transplantation. Cyclosporine significantly improves kidney graft survival for patients receiving a cadaveric transplant (Krakauer et al., 1985). In addition, cyclosporine use seems to reduce the need for clinically matching recipients with donor organs. This could greatly increase the number of people receiving cadaveric transplants. Some evidence suggests this may be taking place. Although transplants increased by 14 percent in 1984, the increase for cadaveric transplants was 21.6 percent; transplants from live related donors decreased by 5.1 percent. In addition, in 1984, the number of persons awaiting transplant increased by

Table 22

Percent distribution of Medicare end-stage renal disease patients, by type and site of dialysis: 1980-84

Type and site	1980	1981	1982	1983	1984
	Number of patients				
Total ¹	52,364	58,924	65,765	71,987	78,483
	Percent distribution				
Total	100	100	100	100	100
In-unit hemodialysis	83	81	80	79	80
Home hemodialysis	9	8	7	6	5
CAPD ²	4	7	10	12	14
Other ³	4	4	3	3	1

¹ Includes a small percentage of patients not covered by Medicare.

² 1984 count for continuous ambulatory peritoneal dialysis includes patients on continuous cycling peritoneal dialysis.

³ Includes in-unit peritoneal, home peritoneal, and self training.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the ESRD Systems Branch.

Table 23

Number of kidney transplants and annual percent change under the Medicare program: United States, 1974-84

Year	Number of transplants	Annual percent change
1974	3,190	—
1975	3,730	16.9
1976	3,504	-6.1
1977	3,973	13.4
1978	3,949	-0.6
1979	4,271	8.2
1980	4,697	10.0
1981	4,885	4.0
1982	5,358	9.7
1983	6,112	14.1
1984	6,968	14.0

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the ESRD Systems Branch.

19.9 percent, the largest increase since 1980 (Health Care Financing Administration, 1985).

Cyclosporine is an expensive drug. Estimates are that ongoing use of the drug costs about \$6,000 per year. Because Medicare does not cover drugs on an ambulatory basis, costs are currently borne out of pocket by the beneficiary unless the patient has Medicaid or private insurance coverage.

The type of treatment ESRD patients undergo has a significant impact on continued participation or return to work or school; preliminary data from a study under way on nondiabetic ESRD patients 19-55 years of age show that, for patients treated at centers by hemodialysis, 30 percent were working or attending school full- or part-time; for those on CAPD, the figure was 46 percent; for those transplanted patients with functioning grafts, the figure was 79 percent (Simmons, 1985).

Interesting changes have occurred among ESRD beneficiaries in terms of use of other medical care not directly related to transplantation or dialysis. Overall, about 70 percent of dialysis patients are hospitalized in any year, compared with about 24 percent for aged

and disabled beneficiaries. However, the discharge rate per 1,000 and the average length of stay for ESRD beneficiaries has decreased markedly since 1974 (Eggers, 1984). Between 1974 and 1979, discharge rates decreased by 17 percent and average length of stay decreased by 23 percent, resulting in a 35-percent decrease in the total days of care. During the same time, days-of-care rates for the disabled increased 22 percent and the rate for the aged remained essentially unchanged. Nonetheless, the days-of-care rate for the ESRD beneficiaries is still approximately four times as great as for other Medicare beneficiaries, illustrating the extreme illness level of the ESRD population. Despite the continuing need for dialysis and the high levels of morbidity (as measured by hospitalization rates), dialysis patients maintain a positive view of their quality of life (Evans et al., 1985). Thus, it seems that persons with end-stage renal disease adapt quite well to their adverse life circumstances.

Medicaid benefits

The Medicaid program was also conceived as a way of increasing access to needed medical care services. In 1963, only 56 percent of persons from low-income families saw a physician during a year; the comparable figure for persons from high-income families was 71 percent (Andersen, Lion, and Anderson, 1976). By 1970, 65 percent of persons from poor families saw a physician, and the figure for persons from high-income families remained unchanged. Much of this increased access for the poor can probably be attributed to Medicaid. Since that time, the differential by income has essentially disappeared. In 1980, the percent of persons seeing a physician during a year from low-, middle-, and high-income families was 76, 75, and 75 percent, respectively (National Center for Health Statistics and Health Care Financing Administration, 1980).

In addition, the number of physician visits increased for poor persons after the enactment of

Medicaid. In 1963, persons under the poverty level averaged 4.4 visits, compared with 4.6 visits for persons from high-income families. By 1970, the number had increased to 4.9 for poor persons, but visits actually decreased for persons from high-income families to 3.6. In 1980, the differential remained, with persons from poor families averaging 4.6 visits and persons from high-income families averaging 3.9. However, Aday, Anderson, and Fleming (1980) point out that the need for medical care is much higher among the poor; if one controls for variation in need for care, then the poor receive somewhat less care than the nonpoor.

Hospital admissions also increased for the poor after the enactment of Medicaid (Andersen, Lion, and Anderson, 1976), particularly for children. In 1963, the poor 17 years of age or under averaged 5 hospital admissions per 100 persons. The rate of admissions rose to 11 in 1970. For poor persons 18-54 years of age, the change was from 20 per 100 in 1963 to 24 per 100 in 1970.

Statistics are not available for all States on the number of persons enrolled in Medicaid. Therefore, rates of utilization in terms of persons at risk cannot be calculated. However, States are required each year to report the number of unduplicated recipients by eligibility category and type of service, and statistics on the numbers of recipients indicate general utilization trends in the Medicaid program.

In the past 10 years, the total number of Medicaid recipients has remained essentially the same. In 1975, there were 22.0 million recipients; in 1984, there were 21.4 million, the lowest number during this time period. The greatest number of recipients was in 1977, with 22.8 million.

Services covered by Medicaid include hospital inpatient, physician, long-term care in both intermediate care facilities (ICF) and skilled nursing facilities (SNF), dental, outpatient, drugs, lab, X-ray, clinic, family planning, and other services. Despite the large number of services covered, a few of the services account for most of the program expenditures. Hospital inpatient, SNF, ICF, ICF/MR (intermediate care facilities for the mentally retarded), physician, outpatient, and drugs account for 87 percent of the entire Medicaid budget.

The number of recipients of these services for 1975 and 1984 are shown in Table 24. The number of Medicaid recipients of hospital care has risen only slightly, from 3.4 million to 3.6 million, a 5-percent increase. Recipients of SNF services have declined during the last decade, by 10 percent, while recipients of ICF services increased by 17 percent. Because of the different definitions States might use in determining that a long-term care bed is an SNF bed or an ICF bed, it is probably instructive to look at the sum of ICF and SNF recipients. Combining the two indicates that there were 1,312,000 recipients of ICF and SNF services in 1975 and 1,365,000 in 1985, an increase of only 4 percent.

The largest increase has come in the area of services for the mentally retarded in intermediate care

Table 24

Medicaid: Number of Medicaid recipients and percent change, by type of service: Fiscal years 1975 and 1984

Type of service	Number in thousands		Percent change 1975-84
	1975	1984	
Total	22,007	21,365	-3
Inpatient hospital	3,432	3,612	5
Nursing home			
Skilled nursing facility	630	565	-10
Intermediate care facility	682	800	17
Intermediate care facility for the mentally retarded	69	139	101
Physician	15,198	14,198	-7
Outpatient	7,437	9,761	31
Drugs	14,155	14,006	-1
Other	(¹)	(¹)	(¹)

¹ Miscellaneous category.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Medicaid Statistics Branch.

facilities. Recipients of ICF/MR services doubled from 69,000 in 1975 to 139,000 in 1984. Although these recipients represent a small fraction of those receiving benefits from Medicaid, increases in their numbers have had a disproportionate effect on Medicaid expenditures because of their high cost.

Program expenditures

Following is an overview of expenditures for the Medicare and Medicaid programs and populations. The growth and changes in Medicare expenditures are examined, including total and per capita expenditures and patterns in the distribution of services. Medicaid expenditures are discussed in terms of type of service, category of assistance, and State budgets. The impact that these expenditures have had on the poor, the elderly, and all levels of government is also discussed, as well as the rising costs of medical care in the United States relative to other countries.

Trends in Medicare benefit payments

Total Medicare reimbursements and reimbursements for the hospital insurance (Part A) program and for the supplementary medical insurance (Part B) program for the period 1966-84 are shown in Table 25. Total Medicare payments grew from \$4.6 billion in 1967, the first full year of the program, to \$62.9 billion in 1984. The accelerated rise in outlays in 1974 and 1975 reflects, in part, outlays for the newly entitled disabled and ESRD beneficiaries. During the period 1967-84, the annual compound rate of growth was 16.6 percent for the total program, 16.1 percent for Part A, and 17.9 percent for Part B. In terms of the real rate of growth (correcting for the general rise in the Consumer Price Index), the annual compound rate of growth was 9.1 percent for the total program,

Table 25
Medicare benefit payments and annual percent change: 1966-84

Year	Total	Hospital insurance	Supplementary medical insurance	Annual percent change for total
Amount in billions				
1966	\$1.0	\$0.9	\$0.1	—
1967	4.6	3.4	1.2	346.5
1968	5.7	4.2	1.5	25.2
1969	6.6	4.7	1.9	15.9
1970	7.1	5.1	2.0	7.5
1971	7.9	5.8	2.1	10.8
1972	8.6	6.3	2.3	9.9
1973	9.6	7.1	2.5	10.9
1974	12.4	9.1	3.3	29.6
1975	15.6	11.3	4.3	25.5
1976	18.4	13.3	5.1	18.2
1977	21.8	15.7	6.0	18.2
1978	24.9	17.7	7.3	14.5
1979	29.3	20.6	8.7	17.6
1980	35.7	25.1	10.6	21.7
1981	43.5	30.3	13.1	21.7
1982	51.1	35.6	15.5	17.6
1983	57.4	39.3	18.1	12.4
1984	62.9	43.3	19.7	9.5
Percent				
ACRG ¹	16.6	16.1	17.9	—
ACRRG ²	9.1	8.6	10.3	—

SOURCE: Health Care Financing Administration, Office of the Actuary: 1985 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Supplementary Medical Insurance Trust Funds.

¹Annual compound rate of growth 1967-84.

²Annual compound real rate of growth 1967-84, adjusted for changes in Consumer Price Index 1967-84.

Table 26
Distribution of Medicare hospital insurance and supplementary medical insurance reimbursements for aged and disabled beneficiaries, by type of service: 1967 and 1983

Type of service	1967		1983		Annual compound rate of growth in percent
	Amount in millions	Percent	Amount in millions	Percent	
Total	\$4,239	100.0	\$53,438	100.0	17.2
Inpatient hospital	2,659	62.7	34,519	64.6	17.4
Physicians and related services	1,224	28.9	13,661	25.6	16.3
Skilled nursing facility	274	6.5	428	0.8	2.8
Home health agency	43	1.0	1,388	2.6	24.1
Outpatient	38	0.9	3,442	6.4	32.5

NOTE: Figures do not include final settlements.

SOURCES: (Social Security Administration, 1971); Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

8.6 percent for Part A, and 10.3 for Part B. The annual rate of growth (not corrected for inflation) from 1983 to 1984 was 9.5 percent, a figure lower than it has been since 1970. From the program's inception, Part A expenditures have been substantially greater than Part B, although Part B outlays have been a growing proportion of total Medicare expenditures. In 1967, Part A represented 74 percent of benefit payments, and Part B represented 26 percent. In 1984, the corresponding figures were 69 and 31 percent.

Medicare benefit payments (aged, disabled, and ESRD enrollees combined) by type of service in 1967 and 1983 are shown in Table 26. Payments for inpatient services and physicians' and related services combined account for about 90 percent of all Medicare payments. As a percent of total Medicare payments, inpatient hospital payments in 1983 (64.6 percent) were slightly higher than in 1967; physicians' payments in 1983 (25.6 percent) were a little less than in 1967. About 60 percent of physicians' payments are for services to hospital inpatients. Thus, in 1983,

nearly 80 percent of all Medicare payments were for services to hospitalized patients.

Understanding the factors contributing to the large growth in hospital expenditures is of considerable interest to policymakers. The Division of National Cost Estimates, Office of the Actuary, Health Care Financing Administration, periodically examines the factors accounting for growth in expenditures for community hospital inpatient care. The latest analysis, for the period 1973-83, partitions the increase into five factors: overall inflation (50.9 percent), population increases (6.7 percent); hospital input prices in excess of the general inflation (14.6 percent); increases in admissions per capita (4.4 percent); and increases in intensity per admission (23.4 percent) (Arnett et al., 1985).

SNF, HHA, and outpatient benefits have all shifted significantly as a percent of total Medicare benefit payments. SNF payments dropped sharply from 6.5 percent in 1967 to only 0.8 percent in 1983. HHA

payments rose to 2.6 percent in 1983, from only 1.0 percent in 1967. Outpatient benefit payments, the fastest growing component of the Medicare program, rose from only 0.9 percent of Medicare benefit payments in 1967 to 6.4 percent in 1983. Outpatient reimbursements in 1983 include services in hospital outpatient departments (85 percent) and freestanding outpatient facilities (15 percent). A substantial proportion of the 1983 payments for outpatient services was for ESRD dialysis treatment. Of the \$3.4 billion for outpatient services, \$0.85 billion was for ESRD patients. Nonetheless, there was a significant increase in the number of other Medicare beneficiaries in 1983 using outpatient services compared with 1967.

Medicare program payments in 1983 on behalf of the elderly accounted for 87.4 percent of total reimbursements, and on behalf of the disabled and ESRD beneficiaries, 12.6 percent. Per capita reimbursements for aged and disabled enrollees in 1983 are summarized in Table 27. For aged persons,

Table 27
Medicare Part A and Part B per capita reimbursement for aged and disabled enrollees, by type of service and age, sex, and race: 1983

Age, sex, and race	Total	Part A			Part B		
		Inpatient hospital	Skilled nursing facility	Home health agency	Physicians and related services	Outpatient	Home health agency
Aged							
Total	\$1,724	\$1,142	\$16	\$47	\$460	\$94	\$1
Age							
65-69 years	1,286	824	4	22	375	88	1
70-74 years	1,618	1,057	9	36	453	98	1
75-79 years	1,942	1,300	18	56	514	101	1
80-84 years	2,249	1,525	29	80	550	93	0
85 years or over	2,396	1,644	48	102	551	88	0
Sex							
Male	1,835	1,228	11	40	493	98	0
Female	1,649	1,085	18	52	439	91	1
Race							
White	1,721	1,135	16	45	466	89	1
All other	1,803	1,252	12	69	420	142	3
Disabled¹							
Total	1,900	1,271	5	37	490	150	0
Age							
Under 35 years	1,502	1,013	2	20	329	181	0
35-44 years	1,600	1,064	3	29	392	165	0
45-54 years	1,888	1,256	4	33	496	161	0
55-59 years	1,989	1,326	5	39	531	143	0
60-64 years	2,134	1,435	8	47	563	129	0
Sex							
Male	1,725	1,164	4	28	446	137	0
Female	2,203	1,457	6	52	563	171	0
Race							
White	1,894	1,266	5	35	503	138	0
All other	1,944	1,307	4	43	434	210	0

¹Excludes persons with end-stage renal disease.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

the average reimbursement for all services combined was \$1,724. Average reimbursements increased directly with age. Persons 85 years of age or over had reimbursements 86 percent higher (\$2,396) than persons 65-69 years of age (\$1,286). Average reimbursements were higher for males than for females and for persons of all other races than for white people.

Inpatient hospital, SNF, and HHA reimbursements rise substantially with age. As age increased from 65-69 years to 85 years of age or over, per capita reimbursements doubled for hospital services, multiplied 12 times for SNF services, and multiplied nearly 5 times for HHA services.

For disabled persons (excluding persons with ESRD), the average reimbursement for all services combined was \$1,900 in 1983, or 10 percent higher than for the aged. The disabled population includes three distinct subgroups: disabled workers, disabled widows and widowers, and adults disabled in childhood. Lubitz and Pine (1985) analyzed the use of services by the disabled population under Medicare and found that average reimbursements for disabled workers and disabled widows and widowers were relatively similar for the same age group, but per capita reimbursements for the group of adults disabled in childhood were only one-half to one-third of the other disabled groups.

The 82,000 ESRD beneficiaries in 1983 accounted for 0.3 percent of Medicare enrollees and for \$1.9 billion in program costs, or 3.6 percent of the total \$53.4 billion payments. Although ESRD beneficiaries have much higher utilization rates for most services than do other Medicare beneficiaries, it is the high cost of maintenance dialysis that accounts for most of the disproportionate ESRD costs. Outpatient payments for the ESRD program in 1983 were \$849 million, or 25 percent of all Medicare outpatient expenditures. In contrast, inpatient hospital expenditures for ESRD beneficiaries in 1983 were \$617 million, or 1.7 percent of all Medicare inpatient hospital expenditures.

Total Medicare expenditures for ESRD beneficiaries were eight times greater in 1983 (\$1.9 billion) than in 1974 (\$229 million). Most of this growth was the result of the increased number of ESRD beneficiaries. In 1974, there were 16,000 persons in the program; by 1983, there were 82,000 persons. Thus, while enrollment was increasing by an annual rate of 17.8 percent, the per capita costs were increasing by an annual rate of only 4.8 percent.

On a per capita basis, ESRD payments were approximately \$14,300 in 1974 and \$23,000 in 1983, or 62 percent greater. In comparison, Medicare per capita payments for the aged during this same time period grew from \$455 to \$1,724, or by 280 percent. The low increase in per capita costs for ESRD enrollees was, in large part, attributable to the maximum dialysis charge that was set at \$138 in 1973 and remained unchanged until August 1983. At that time, the maximum charge was adjusted, based on ESRD facility audit data, and reduced to \$127 for

freestanding dialysis facilities and \$131 for hospital-based dialysis facilities. Because the rate of growth in the ESRD population is decreasing, it is likely that the ESRD program costs will rise more slowly in the near future.

Distribution patterns of Medicare reimbursement

Although discussions of per capita reimbursements for the aged and disabled provide a broad overview of the average experience, they obscure the important fact that large variations exist in the use of services by beneficiaries. As shown in Table 27, the average Medicare reimbursement for an aged enrollee in 1983 was \$1,724. Yet, as in all other years, a large proportion of aged enrollees in 1983 had small claims or none at all. As shown in Table 28, 37.4 percent of all aged enrollees had no reimbursements made on their behalf, and an additional 33 percent had reimbursements of less than \$500. Thus, 70 percent had reimbursements less than \$500 and 30 percent had reimbursements that were \$500 or more.

About 24 percent of the aged were hospitalized in 1983, and the vast majority of these hospitalized enrollees (21 percent) fall within the 30 percent of enrollees with reimbursement of \$500 or more (Helbing and Latta, 1985). The highest 9.6 percent of users had reimbursements of \$5,000 or more, and reimbursements for those enrollees accounted for 72.2 percent of program payments.

The fact that a small proportion of enrollees uses a high proportion of program benefits raises questions as to whether or not benefits are being used appropriately. First, it should be observed that the underlying purpose of health insurance (and other types of insurance as well) is to provide protection against the risk of large, unexpected bills. From the National Medical Care Utilization and Expenditure Survey of the noninstitutionalized population (National Center for Health Statistics and Health Care Financing Administration, 1980), it was found that 63 percent of the aged considered their health to

Table 28
Percent distribution of Medicare enrollees 65 years of age or over and reimbursements, by reimbursement category: 1983

Reimbursement category	Enrollees	Reimbursements
Percent distribution		
Total ¹	100.0	100.0
No reimbursement	37.4	0.0
\$1-499	33.0	3.2
\$500-1,999	11.4	7.5
\$2,000-4,999	8.6	17.1
\$5,000 or more	9.6	72.2

¹In 1983, there were 28.6 million enrollees and \$46.7 billion in reimbursements.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

be "excellent or good" and 60 percent had no functional limitations with regard to major or outside activities. The fact that 70 percent of the aged in 1983 had Medicare reimbursements of less than \$500 seems to bear out the general relationship between health status and the use and costs of health care; namely, persons in good or excellent health tend to be low users of health care services.

These data cannot indicate the cost effectiveness of health care benefits used by the 30 percent of the aged who had reimbursements of \$500 or more made on their behalf. Yet, the data can provide some insight as to: the characteristics of beneficiaries who are likely to have high reimbursements; the proportion of very high users; whether or not the concentration of Medicare benefits on a small number of users is increasing over time; and whether or not the Medicare experience in use of resources is different from that of the nonaged population.

One group of high users is aged enrollees with both Medicare and Medicaid entitlement. Far more of the dual enrollees use Part A and Part B services (even correcting for their older age) than Medicare enrollees without Medicaid entitlement. In 1978, Medicare reimbursements per enrollee for those without Medicaid averaged \$799; for those with both Medicare and Medicaid, Medicare outlays were \$1,283 (61 percent higher). In addition, Medicaid program outlays for the dual enrollees were estimated to be about \$1,900. Thus, Medicare and Medicaid combined outlays for the dual enrollees were about \$3,200 (McMillan et al., 1983).

In a study of another group of high users, Lubitz and Prihoda (1984) traced back the experience of aged Medicare beneficiaries, who died in 1978, for a full 12 months and found that reimbursements for these decedents averaged \$4,527; reimbursements averaged \$729 for a comparison group who survived during those 12 months under study. All decedents combined made up 6 percent of Medicare enrollees and 28 percent of program reimbursements. Thus, persons in their last years of life are likely to use Medicare benefits at a much greater rate than other enrollees. Although decedents are relatively high users, 88 percent of all decedents had Medicare reimbursements of less than \$10,000 in the last 12 months of their life; only 6 percent of them in 1978 had reimbursements of \$15,000 or more. A finer breakdown of these 6 percent showed that 3 percent had reimbursements between \$15,000 and \$19,999, 2 percent had reimbursements between \$20,000 and \$29,999, and 1 percent had reimbursements of \$30,000 or more.

For more recent data, a special tabulation was made to examine the distribution of Medicare reimbursements for aged enrollees who died in 1983 (Helbing and Latta, 1985). For 52 percent of the decedents, Medicare reimbursements in the calendar year in which they died (that is, an average of 6 months' costs) were less than \$5,000. For 38 percent of the decedents, reimbursements were between \$5,000 and \$19,999. For the remaining 10 percent, reimbursements were \$20,000 or more. Thus, for 9

out of 10 persons who died in 1983, Medicare benefits that year were less than \$20,000.

Not all of the high users of benefits are about to die; of all beneficiaries with \$20,000 or more in Medicare reimbursements in 1983, 33 percent died and 67 percent survived. Thus, two out of three high users survive. The fate of the survivors in 1984 and beyond cannot be ascertained from these tabulations for 1983. In a recent study focusing on the costs of dying, Scitovsky (1984) observed: "It is easy enough, of course, to designate a patient as terminal or as dying retrospectively, but an entirely different matter to do so prospectively. Despite the enormous advances of modern medicine in the past 50 years, medical prognosis is still highly uncertain . . . Today, predicting imminent death with any degree of certainty is difficult in the case of most patients and predicting death 12 or 6 or even 3 months in advance is well-nigh impossible. The main exceptions are cancer patients for whom a prognosis of death can be made with reasonable accuracy beyond a certain point in the course of the disease; and it is no accident that hospice programs serve primarily such patients."

Finally, Riley et al. (1985) looked at the distribution of Medicare expenditures among the aged to see if expenditures over time were being concentrated more on those with catastrophic illnesses. The study showed that the distribution had remained stable over time, with the top 2 percent of enrollees responsible for a similar proportion of reimbursements in 1969, 1975, and 1982. Other studies also have found remarkable consistency over time in the use of health care dollars by the highest users—and levels not dissimilar to the Medicare experience. For example, the Congressional Budget Office (1982) found that, for 1978, the top 1 percent of families consisting of Federal employees insured by the Blue Cross/Blue Shield Federal Employees Health Benefit Plan accounted for 22 percent of expenditures. Riley et al. (1985) found that the top 1 percent of aged Medicare beneficiaries accounted for 21 percent of Medicare expenditures in 1975 and 20 percent in 1982.

Thus, in summary, only 30 percent of Medicare enrollees in 1983 used \$500 or more in benefits. Persons who are mortally ill are likely to be high users although among the high users, there are more survivors than decedents; the vast majority of enrollees are nonusers or small users of benefits in any 1 year. Moreover, it appears that the continuing rise in Medicare payments for those who are users has not been primarily the result of unbounded catastrophic outlays for persons who are very ill, but rather because of steady cost increases across all user levels.

Trends in Medicaid payments

Medicaid payments for 1975 and 1984 by type of service are summarized in Table 29. Total Medicaid benefit payments have grown far less rapidly than Medicare payments. From 1975 to 1984, Medicaid expenditures increased from \$12.2 billion to \$34.3

Table 29
Medicaid total payments, by type of service: Fiscal years 1975 and 1984

Type of service	1975		1984		Percent change 1975-84
	Amount in millions	Percent distribution	Amount in millions	Percent distribution	
Total	\$12,242	100	\$34,262	100	180
Inpatient hospital	3,374	28	9,066	26	169
Nursing home					
Skilled nursing facility	2,434	20	4,856	14	99
Intermediate care facility	1,885	15	5,899	17	213
Intermediate care facility for the mentally retarded	380	3	4,179	12	998
Physician	1,225	10	2,224	6	82
Outpatient	373	3	1,705	5	357
Drugs	815	7	1,979	6	143
Other	1,756	14	4,354	13	148

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Medicaid Statistics Branch.

billion (180 percent). During the same period, Medicare payments rose from \$15.6 billion to \$62.9 billion (303 percent).

Inpatient hospital care accounts for a much smaller proportion of Medicaid program dollars (26 percent in 1984) compared with Medicare program dollars (64 percent in 1983). This reflects, in part, the fact that for the dual eligibles, Medicare is the first payer for hospital care, with Medicaid covering the deductibles and coinsurance.

Nursing home care (SNF, ICF, and ICF/MR) is the largest component of the Medicaid budget, accounting for 43 percent of all Medicaid outlays in 1984. SNF and ICF payments, not including ICF/MR, are primarily for the aged, and accounted for 31 percent of Medicaid outlays in 1984.

Growth in spending for nursing home care other than ICF/MR has slowed considerably in recent years. Moreover, the share of nursing home care financed by public programs has also declined since 1979, from 56 percent in 1979 to 48 percent in 1983 (Gibson et al., 1984). Rymer, Burwell, and Madigan (1984) showed that, between 1973 and 1982, Medicaid spending on SNF and ICF (excluding ICF/MR) services remained at a constant level of about 34 percent of total Medicaid expenditures; in 1984, the proportion had fallen to 31 percent.

The overall growth in the proportion of total Medicaid spending for nursing home care is the result of rapid expansion in intermediate care facilities for the mentally retarded, a Medicaid benefit first offered in 1972. Since then, payments for ICF/MR were the most rapidly growing benefit financed by Medicaid. In 1975, only \$0.38 billion (3 percent) of Medicaid payments were for ICF/MR services; by 1984, \$4.2 billion was paid for ICF/MR services (12 percent of total Medicaid outlays). The rapid growth in ICF/MR payments is primarily attributable to the certification of State institutions for the mentally retarded as ICF/MR facilities.

During the period 1977-82, the number of ICF/MR Medicaid certified beds increased 40 percent; analysis of current trends indicates that the rapid growth of ICF/MR will slow over the next few years as the pool of beds eligible for Medicaid certification dwindles (Gibson et al., 1984). In 1984, payments for ICF/MR rose by only 2.5 percent over the previous year, below the overall increase of 5.8 percent in Medicaid expenditures.

The average Medicaid payment per recipient in 1975 and 1984 by type of service is shown in Table 30. These figures indicate clearly that payments for long-term care services in nursing homes are the most costly per user of service. In 1984, for recipients of SNF and ICF services, the average Medicaid payment was \$8,594 and \$7,377, respectively; for recipients of ICF/MR services, the average Medicaid payment was \$29,995.

Table 30
Medicaid payments per recipient, by type of service: Fiscal years 1975 and 1984

Type of service	1975	1984	Percent change 1975-84
Total	\$556	\$1,604	188
Inpatient hospital	983	2,510	155
Nursing home			
Skilled nursing facility	3,864	8,594	122
Intermediate care facility	2,764	7,377	167
Intermediate care facility for the mentally retarded	5,507	29,995	445
Physician	81	157	94
Outpatient	50	175	250
Drugs	58	141	143
Other	(¹)	(¹)	(¹)

¹ Miscellaneous category.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Medicaid Statistics Branch.

The substantial increase in payments for ICF/MR services under Medicaid had a profound effect on the distribution of Medicaid benefits by eligibility category. Changes in Medicaid payments from 1975 to 1984, by eligibility category, are shown in Table 31. In 1975, AFDC families accounted for 14.1 million persons (64.2 percent of the Medicaid recipient population), but they accounted for only 34.7 percent of total Medicaid payments. In 1984, although the number of AFDC recipients (15.3 million) and proportion (67.8 percent) of the total population had risen slightly, their share of Medicaid outlays fell to only 25.2 percent. As shown in Figure 2, AFDC children were the largest group of recipients in 1984 and accounted for a relatively small part of the Medicaid budget. Per capita outlays per AFDC child recipient was \$418, a figure far below the average outlay for other Medicaid groups. These findings confirm the results of the 1980 National Medical Care Utilization and Expenditure Survey that showed most Medicaid children to be in good health, although 7 percent of Medicaid children compared with only 3 percent of non-Medicaid children were perceived to be in fair or poor health (Kasper and Howell, 1985).

The number of aged SSI recipients fell from 3.6 million recipients to 3.2 million, but their share of Medicaid outlays rose slightly from 35.6 percent to

37.3 percent, probably reflecting the small increase in nursing home users (excluding ICF/MR) between 1975 and 1984.

Rymer, Burwell, and Madigan (1984) observed that the growth in the aged Medicaid nursing home population has lagged behind overall demographic trends. From 1975 to 1982, the number of aged nursing home patients receiving Medicaid increased by about 11 percent. During the same period, the total elderly population increased by almost 20 percent.

The most dramatic change occurred with the disabled population. Although there was only a small growth in recipients from 2.4 million in 1975 to 2.9 million in 1984, Medicaid outlays for the disabled increased from \$3.0 billion (24.9 percent) to \$11.7 billion (34.3 percent) of the total. The high rate of increase reflected, in part, the \$4.2 billion expenditures for the 139,000 disabled persons in ICF/MR facilities.

State expenditures for Medicaid

Medicaid is the fastest growing component of aggregate State spending and it is growing faster than State revenues. Between 1965 and 1981, State Medicaid expenditures have gone from 2 percent of total State spending to 7.7 percent of State spending,

Figure 2
Distribution of Medicaid recipients and expenditures, by eligibility category: United States, 1984

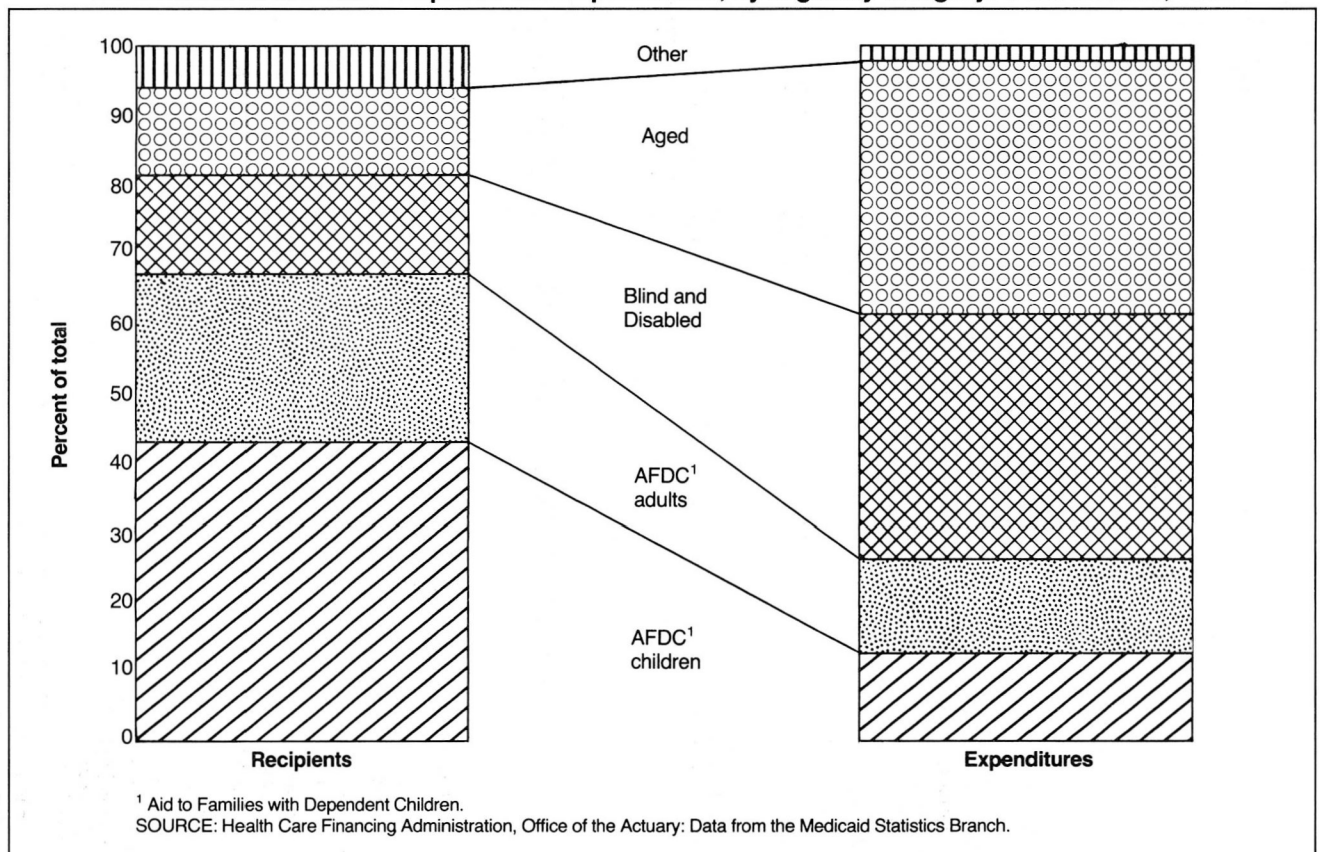


Table 31

Number of Medicaid recipients, total payments, and average payment per recipient, by basis of eligibility: Fiscal years 1975 and 1984

Basis of eligibility	Recipients				Total Medicaid payments				Average payment per recipient		
	1975		1984		1975		1984		1975	1984	
	Number in thousands	Percent	Number in thousands	Percent	Amount in millions	Percent	Amount in millions	Percent	Amount	Percent change 1975-84	
Total	22,007	100.0	21,365	100.0	\$12,242	100.0	\$34,262	100.0	\$556	\$1,604	188
Aid to Families with Dependent Children:											
Children	9,598	43.6	9,771	43.1	2,186	17.9	4,083	11.9	228	418	83
Adults	4,529	20.6	5,598	24.7	2,062	16.8	4,548	13.3	455	812	78
Supplemental Security Income:											
Aged	3,615	16.4	3,166	14.0	4,359	35.6	12,775	37.3	1,205	4,035	235
Blind	109	0.5	80	0.3	93	0.8	220	0.6	850	2,753	224
Disabled	2,355	10.7	2,870	12.7	3,052	24.9	11,748	34.3	1,296	4,094	216
Other Title XIX recipients	1,800	8.2	1,184	5.2	492	4.0	889	2.5	273	751	175

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Medicaid Statistics Branch.

Table 32

Expenditures for selected public activities as a percentage of total States' expenditures: Selected years 1959-81

Public service	Percent change 1959-81												
	1959	1961	1963	1965	1967	1969	1971	1973	1975	1977	1979	1981	
Education	35.4	36.6	37.3	38.3	40.8	40.4	39.2	38.4	38.3	37.7	36.6	35.9	1.4
Highways	19.6	17.5	16.8	16.4	14.9	13.2	12.0	10.3	9.8	8.5	8.7	8.5	-56.6
Welfare	} 8.2	} 8.4	} 8.5	} 2.0	} 3.0	} 3.7	} 3.9	} 5.1	} 5.6	} 6.3	} 6.7	} 7.7	} 1285.0
Medicaid													
Health and hospitals	7.9	7.1	6.6	7.2	7.1	7.3	7.4	7.7	8.2	8.3	8.7	8.9	23.6
Police and fire	5.4	5.5	5.3	5.2	4.8	4.9	5.0	5.4	5.2	5.4	5.3	5.2	-3.7
All other services	23.6	24.9	25.4	24.5	23.7	23.8	24.3	25.3	26.7	27.6	28.3	28.6	21.2
Medical vendor payments as a percentage of total welfare expenditures	—	—	—	23.8	34.0	35.9	32.5	39.2	47.5	50.0	54.0	60.2	1152.9

¹Percent change was calculated from 1965-81.

SOURCE: (Cromwell et al., 1984).

a relative increase of 285 percent (Table 32). During that same period of time, Medicaid payments have gone from 23.8 percent of total State welfare expenditures to 60.2 percent of welfare expenditures, reflecting, in large part, the fact that cash assistance payments have risen very slowly compared with the rise in the cost of health care services.

Another measure of the increasing burden of the Medicaid program on States is the growth in Medicaid spending relative to the growth in State revenues. According to Rymer, Burwell, and Madigan (1984), Medicaid expenditures increased at an annual compound rate of 16.9 percent for the years 1972-82. This compares with only an 11.4 percent annual compound growth rate in State revenues. Some of the growth rate of Medicaid expenditures, however, reflects shifts (such as for ICF/MR services) from other parts of State budgets to Medicaid.

Discussion of national Medicaid expenditure levels obscures the fact that there are considerable variations by State. A recent study by Cromwell et al. (1984) illustrates the fact that Medicaid expenditures vary greatly across States. Although it is difficult to find a single best measure to index this variation, the use of expenditures per capita (i.e., per resident) and expenditures per person in poverty (with poverty levels adjusted for differences in cost-of-living across States) seem to be reasonable first approximations. Both of these indices show great variation in expenditures. For example, in 1984, four States had per capita Medicaid expenditures of less than \$70, and four States had per capita expenditures of more than \$190. Similarly, seven States had Medicaid expenditures per person in poverty of less than \$500, and eight States had per person in poverty expenditures of \$1,500 or more.

Trends in health care outlays

Trends since 1940 in health care spending for the Nation as a whole and for the Medicare and Medicaid programs are shown in Table 33. Spending for health care has steadily increased both in terms of dollars and in terms of the general economy. In 1984, national health expenditures constituted 10.6 percent of the gross national product (GNP), compared with 5.3 percent in 1960. A variety of factors is generally believed to have contributed to the disproportionate growth in health care spending relative to the GNP, including rising expectations in the Nation about the value of health care services, rapid development and dissemination of medical technology which expanded the treatment of disease, government financing of health care services, the nature of third-party reimbursement; and the lack of competitive forces in the health care system to increase efficiency and productivity in the delivery of health care services.

Spending for Medicare and Medicaid has been increasing even faster than total health care spending (Table 33). In 1984, Medicare and Medicaid spending together reached \$103.3 billion (26.7 percent of the \$387.4 billion total health care bill); in 1967, Medicare and Medicaid spending together represented only 15 percent of the total health care bill. However, the increase in national health expenditures from 1983 to 1984 was 9.1 percent, the lowest annual increase in 20 years; only a few years ago, the annual rise was much greater (15.3 percent in 1980 and 15.2 percent in 1981).

Expenditures in 1984 for personal health care services (which exclude national spending on research and medical facilities) and the share Medicare and Medicaid contributed, as well as other sources of funding, are shown in Figure 3. For all services

Table 33
Medicare and Medicaid expenditures as a percent of total national health expenditures:
Selected calendar years, 1940-84

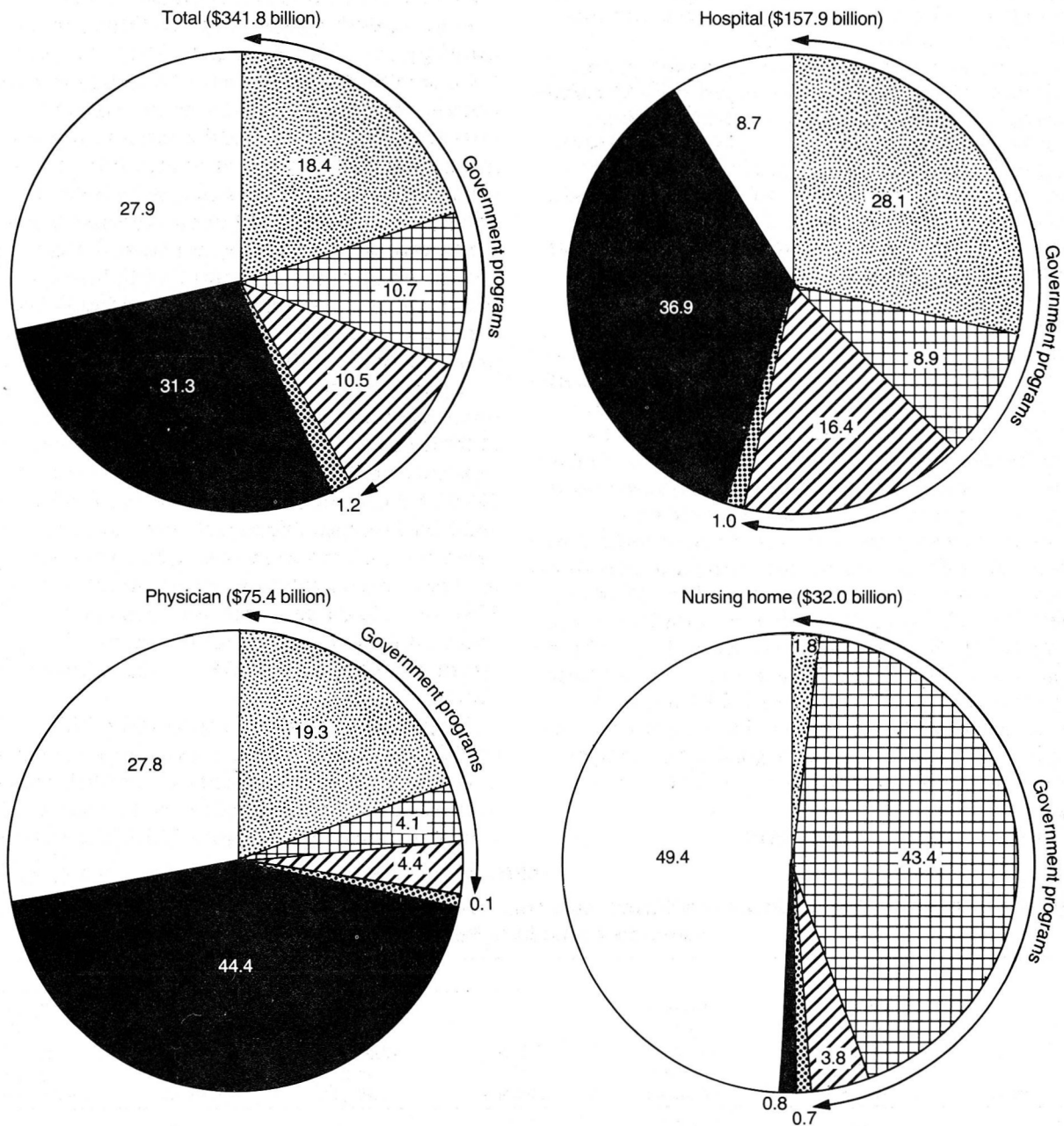
Year	National health expenditures in billions	Percent of gross national product	Medicare and Medicaid			Percent of national health expenditures
			Total in billions	Medicare in billions	Medicaid in billions	
1940	\$4.0	4.0	—	—	—	—
1950	12.7	4.4	—	—	—	—
1960	26.9	5.3	—	—	—	—
1965	41.7	6.0	—	—	—	—
1967	51.1	6.4	\$7.7	\$4.7	\$3.0	15.0
1970	74.7	7.5	13.0	7.5	5.5	17.4
1975	132.7	8.6	30.4	16.3	14.1	22.9
1980	249.0	9.5	63.6	36.8	26.8	25.5
1981	286.6	9.8	75.4	44.8	30.6	26.3
1982	322.4	10.5	86.2	52.2	34.0	26.8
1983	355.1	10.8	94.6	59.0	35.6	26.6
1984	387.4	10.6	103.3	64.6	38.7	26.7
ACRG ¹	12.6	—	16.5	16.7	16.2	—

¹ Annual compound rate of growth 1967-84.

NOTE: Medicare and Medicaid expenditures include administrative expenses.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Division of National Cost Estimates.

Figure 3
Personal health care expenditures for total population, by type of service¹ and source of funds:
United States, 1984



Source of funds

Medicare	Medicaid	Other government
Private insurance	Other private	Out of pocket

¹ All other services combined (including drugs, dental, eyeglasses, etc.) accounted for \$76.5 billion of the total and is not shown as a separate pie chart.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Division of National Cost Estimates.

Table 34

Percent distribution of per capita personal health care expenditures for persons 65 years of age or over, by source of funds: Fiscal year 1966 and calendar year 1984

Source of funds	1966		1984	
	Amount	Percent	Amount	Percent
Per capita	\$445	100.0	\$4,202	100.0
Out-of-pocket	237	53.2	1,059	25.2
Private insurance	71	15.9	304	7.2
Other private	5	1.1	16	.4
Medicare	—	—	2,051	48.8
Medicaid	—	—	536	12.8
Other government	133	29.8	236	5.6

SOURCES: (Mueller and Gibson, 1976; Waldo and Lazenby, 1984).

combined, the personal health care bill in 1984 came to \$341.8 billion. Medicare's share of the total bill was 18.4 percent, and Medicaid's share was 10.7 percent. Medicare's role was clearly most substantial for hospital care (28.1 percent); Medicaid's role was most substantial for nursing home care (43.4 percent). The impact of Medicare and Medicaid funding for hospital and nursing home care is no doubt reflected in the growth of these two services during the past two decades. In 1965, total personal health care outlays were \$35.9 billion. Hospital care represented 39.0 percent of the total in 1965 and 46.2 percent of the total in 1984; nursing home care represented 5.8 percent of the total in 1965 and 9.4 percent of the total in 1984.

Out-of-pocket payments

Medicare and Medicaid expenditures represent the majority of health care outlays for the aged, although a significant amount is funded by other sources. The sources of funding for the aged in fiscal year 1966 (the year preceding the implementation of Medicare and Medicaid) and calendar year 1984 are shown in Table 34. In 1984, total per capita expenditures for personal health care services for the aged were \$4,202, and Medicare and Medicaid combined accounted for

61.6 percent of the total. Other government sources funded 5.6 percent. Thus, total government outlays for the aged in 1984 were 67.2 percent, compared with 29.8 percent in fiscal year 1966.

Out-of-pocket payments (that is, direct payments from the aged) amounted to \$1,059 (25.2 percent) in 1984, compared with \$237 (53.2 percent) of the total in 1966. Private insurance covered 7.2 percent of the health care bill for the aged in 1984, compared with 15.9 percent in 1966.

Additional details of per capita health care spending in 1984 for the aged, with the source of funding for hospital care (inpatient and outpatient combined), physicians' services, and nursing home care are provided in Table 35. Medicare provided the greatest amount of funding for hospital care (74.8 percent), followed by physicians' services (57.8 percent), with a tiny fraction of funding for nursing home care. Medicaid provided the greatest amount of funding for nursing home care (41.5 percent).

Out-of-pocket liability was greatest for nursing home care (50.1 percent), and substantial for physicians' services (26.1 percent). For hospital care, only 3.1 percent was from out-of-pocket payments.

The Part A program under Medicare accounts for about 70 percent of program outlays, although it is the Part B program that is responsible for about 70 percent of beneficiary liability in the form of deductibles and coinsurance under Medicare. This follows from the cost-sharing provisions of the Medicare law. Under Part A, the beneficiary who is hospitalized must pay a deductible for each benefit period, but after the deductible is met no coinsurance is required until the 61st day. Under Part B, the beneficiary is responsible for a deductible each year and 20-percent coinsurance for nearly all services.

Because the vast majority of Medicare enrollees require relatively low program reimbursements, the majority experience relatively low liability for the deductibles and coinsurance required by the program. For 1984, it was estimated that 92 percent had less than \$1,000 in liability from the deductibles and coinsurance under Medicare, and 8 percent had more than that (Gornick, Beebe, and Prihoda, 1983).

Table 35

Percent distribution of per capita personal health care expenditures for persons 65 years of age or over, by source of funds and type of service: 1984

Source of funds	Total care	Hospital	Physician			Nursing home	Other care
			Amount	Percent distribution	Percent distribution		
Per capita	\$4,202	\$1,900	\$868	\$880	\$554		
Total	100.0	100.0	100.0	100.0	100.0		
Out-of-pocket	25.2	3.1	26.1	50.1	59.9		
Private insurance	7.2	7.9	13.5	1.1	4.9		
Other private	.4	.4	.0	.7	.5		
Medicare	48.8	74.8	57.8	2.1	19.9		
Medicaid	12.8	4.8	1.9	41.5	11.4		
Other government	5.6	9.1	.7	4.4	3.4		

SOURCE: (Waldo, and Lazenby, 1984).

Table 36**Mean out-of-pocket health costs as a percent of income for persons 65 years of age or over: Selected years 1966-84**

Year	Mean out-of-pocket expenditures	Mean personal income	Out-of-pocket as a percent of income
1966	\$300	\$2,000	15
1977	690	5,592	12
1981	1,187	8,639	14
1984	1,575	10,615	15

SOURCE: (U.S. Senate, Special Committee on Aging, 1984).

Nearly 70 percent of the aged purchase "Medigap" policies that cover some or all of the cost-sharing requirements under Medicare. Yet, even with coverage of physicians' services by Medicare and Medigap (and Medicaid for the poor aged), the aged as a group still pay 26.1 percent in out-of-pocket payments for physicians' care; these payments are primarily for uncovered services, such as preventive care, and for charges above the Medicare allowed charge that neither Medicare nor Medigap policies will cover. In contrast, beneficiary liability for inpatient hospital care under Part A came to 7 percent of total hospital charges in 1983, and Medigap policies generally cover that liability.

The U.S. Senate's Special Committee on Aging (1984) estimated out-of-pocket expenditures as a percent of mean income for 1966, 1977, 1981, and 1984 (Table 36). As a percent of mean income, out-of-pocket expenditures (which included direct out-of-pocket payments plus insurance premiums) were estimated at 15 percent in 1966 and 12 percent in 1977. In 1981 and 1984, their estimates were 14 percent and 15 percent, respectively.

HCFA's Office of the Actuary also estimated out-of-pocket expenditures as a percent of mean income for 1965 and 1983. It was estimated that the elderly paid 10-12 percent in direct out-of-pocket payments, excluding insurance premiums, in 1983, and the percentage was in the same 10-12 percent range in 1965 (Lazenby and Waldo, 1985). Thus, from each of these sources, it appears that the out-of-pocket burden, measured as a percent of mean income, has been at approximately the same level since Medicare and Medicaid began.

A different look at the burden of out-of-pocket expenses is shown in Table 37, in which a distribution of aged persons according to the percent of income used for out-of-pocket expenses in 1980 is given. For those in the poor/near poor income group, 6 percent had out-of-pocket expenses amounting to 10-14.9 percent of income; an additional 12 percent had out-of-pocket expenses of 15 percent or more of income. As income levels rose, the proportion with out-of-pocket expenses that amounted to 10 percent or more of income fell sharply. The burden of medical care services is inversely related to income levels and is still quite high for the lowest income group. In that lowest income group, the aged with Medicaid have a relatively low out-of-pocket burden (McMillan and Gornick, 1984). Thus, if the poor/near poor group were separated into two groups, the figures for the poor/near poor income group without Medicaid would show an even greater burden than depicted in Table 37.

International health care expenditures increases

Although there has been a rapid rise in public and private spending for health care in this country, this increase is not unique to the United States or associated with a particular type of financing system. Data on health care expenditures as a percent of gross national product (GNP) for nine advanced industrialized nations for 1960-80 are presented in Table 38. Although the rate of growth varies considerably across countries, none of these countries had increases in GNP spending on health care of less than 32 percent, and two-thirds had increases of more than 75 percent. The rates of growth do not seem to be related to either the initial percent of GNP spent on health or a particular financing mechanism. In 1980, five of the nine countries had health care expenditures that represented 9 percent or more of their GNP. France at 8.9 percent was close to the mark. The United Kingdom and Canada were the only countries with considerably lower percentages of their GNP devoted to health care. The size of social insurance and social welfare programs, as well as the size of health care expenditures, is a growing concern in many countries. Reports from these other countries indicate that they share, to a remarkable degree,

Table 37**Percent distribution of persons 65 years of age or over, by income group and out-of-pocket expenditures as a percent of total income: 1980**

Income group	Total	Out-of-pocket expenditures			
		Less than 5 percent of income	5-9.9 percent of income	10-14.9 percent of income	15 percent or more of income
Poor/near poor	100.0	67	15	6	12
Low income	100.0	73	17	3	7
Middle income	100.0	88	9	2	1
High income	100.0	96	3	1	0

SOURCE: (National Center for Health Statistics and Health Care Financing Administration, 1980).

Table 38

Health care expenditures as a percent of gross national product for selected countries: 1960-80

Country	1960	1965	1970	1975	1980	Percent increase 1960-80
United States	5.3	6.0	7.5	8.6	9.5	79
Australia	5.0	5.2	5.6	7.0	9.8	96
Canada	5.6	6.1	7.1	7.1	7.4	32
Finland	4.2	5.2	5.9	6.8	—	¹ 62
France	5.0	5.9	6.6	8.1	8.9	78
Federal Republic of Germany	4.4	5.2	6.1	9.7	9.6	118
Netherlands	—	5.0	6.3	8.6	9.1	² 82
Sweden	3.5	5.8	7.5	8.7	9.4	169
United Kingdom	3.8	3.9	4.9	5.6	5.8	53

¹Percent increase calculated for 1960-75.

²Percent increase calculated for 1965-80.

SOURCES: Health Care Financing Administration, Office of the Actuary: Data from the Division of National Cost Estimates; (Simanis and Coleman, 1980; Simanis, 1985).

many of the same issues, policy debates, and dilemmas that confront the United States.

Summary and conclusions

This compilation of data suggests that there is a broad basis of information to draw on in gaining an understanding of the 20-year experience of Medicare and Medicaid program beneficiaries. The following is a summary of the most relevant facts to consider as decisions are made in the future about the beneficiary populations and the structure of the programs.

Medicare was designed so that nearly the entire aged population became eligible for hospital care on the day the program was implemented. On June 30, 1966, there were more than 8 million people or 44 percent of the population 65 years of age or over without hospital insurance. On July 1, 1966, 19.1 million aged persons, virtually the entire population 65 years or over, were enrolled in Medicare. This striking alteration in the level of health insurance coverage among the aged was a major factor in the rapid and far-reaching impact that Medicare had on the aged population, in particular, and on the health care system, in general. In contrast, it took several decades after the enactment of the social security program in 1935 before most of the aged were eligible for social security benefits.

During the past 20 years, the number of aged persons enrolled in the Medicare program has grown to more than 28 million, with the program covering 75 percent of hospital and 58 percent of physicians' expenditures for the aged in 1984. During this time, mortality rates in the aged population declined more sharply than before, and many believe these reductions reflect improved access to health care services, improved treatment, and the general improvement in the economic circumstances of the aged. The aged increased in both absolute numbers and in relative terms during the past 20 years, and projections for the next several decades indicate that the percentage of the population over age 65 will continue to grow. Another finding is that differences

by race in the use of health care services diminished significantly, reflecting both the fact that participation in Medicare required that hospitals be desegregated and that reimbursement by Medicare enabled minority and low-income elderly access to care.

A review of the characteristics of the aged and their use and cost of services suggests that there are subsets of the aged who may be most vulnerable to future changes in the Medicare program or to changes in the health care sector. Although, as a group, the aged are much better off today than they were when Medicare began, a wide range in income still exists, with 12 percent (3.3 million) of the aged living at or below the poverty level in 1984. Those most at-risk to being poor are minorities, women, persons living alone, and the older elderly. Future program changes should be assessed in terms of continued access to care for these highly vulnerable populations.

Unless catastrophic protection is provided, the elderly who are in ill health may also be at-risk to financial insecurity as a result of future changes in Medicare cost sharing. The need for services is not uniform across the aged population. Rather, the distribution of services on an annual basis is similar to that of other insured groups, with most persons using only a small amount of services, and a small percentage using relatively large amounts of services. The life cycle is such that the final years are often preceded by illness and the need for hospital and medical services. Some of the aged, however, experience costly illnesses, and live for several years. Because existing cost-sharing provisions are tied into the use of services, the elderly who are in poor health currently experience the highest beneficiary liability. To prevent undue financial burden, the liability of beneficiaries in the event of catastrophic illness should be considered in future cost-sharing reform.

The elderly who are in poorer than average health are also vulnerable to changes in the health care system. As health care becomes oriented to a more competitive market system, insurers and providers of prepaid capitated systems may seek to enroll the healthiest and, hence, lowest users of health care

resources. Unless incentives are there to provide services for the elderly with chronic illnesses and functional limitations, access to care for this group could be diminished. This suggests that Medicare payment for future health care delivery systems must be fair from both the beneficiary and provider perspective.

The Medicaid program has had a major role in filling the gaps in the needs of low-income elderly and the long-term care needs of the aged in general. In 1984, Medicaid covered 13 percent of the total health care expenditures of the aged. For many of the poor and near-poor elderly living in the community, Medicaid provides needed services that Medicare does not cover, such as drugs, eyeglasses, hearing aids, and the premiums, deductibles, and coinsurance that Medicare-covered services require. The noninstitutionalized low-income elderly with dual coverage in Medicare and Medicaid are a high-risk group, with substantially higher health care use and higher mortality rates than the aged who are in better economic circumstances.

Because Medicare is the first payer for hospital and medical bills, Medicaid expenditures for the noninstitutionalized aged are relatively low. Most of Medicaid outlays for the aged are for nursing home care, and these payments account for a substantial portion of the Medicaid budget. In 1984, Medicaid expenditures for SNF and ICF services (excluding services for the mentally-retarded) amounted to 31 percent of total Medicaid spending. Medicaid has become the principal third-party payer for long-term care; few of the aged have insurance for nursing home care, and many who enter a nursing home as private pay patients exhaust their assets and become dependent on Medicaid. In 1984, 50 percent of all nursing home expenditures for the aged were paid for out of pocket, and 42 percent were funded by Medicaid. Medicare covered only 2 percent of total nursing home costs for the aged, and only for services that qualified as post-hospital skilled nursing facility care.

Both Medicare and Medicaid play a significant role in providing access to care for severely disabled persons under age 65 who are unable to engage in any substantial gainful activity and whose impairment is expected to result in death or to continue for not less than 12 months. In 1984, Medicare and Medicaid each had about 3 million persons enrolled because of disability, with about a 20 percent overlap in enrollees.

The disabled under Medicare are primarily disabled workers and disabled widows, although 16 percent are adults disabled in childhood, half of whom are mentally retarded. Black people make up a higher proportion of the disabled population than the proportion they represent of the general population. The disabled workers and widows have proved to be a high-risk group, experiencing mortality rates that are 6.6 times the mortality rates of the general population in the same age range. In 1983, Medicare per capita expenditures for the disabled (\$1,900) were a little

higher than for the aged (\$1,724); the group disabled in childhood, however, have relatively low per capita expenditures under Medicare, averaging one-half to one-third of the costs of other Medicare enrollees. Under Medicare, the disabled as a group (including people with ESRD) account for about 10 percent of all enrollees and about 13 percent of total outlays.

The disabled under Medicaid have a much greater impact on the Medicaid budget. In 1984, they accounted for about 13 percent of the recipient population and 34 percent of Medicaid spending, with ICF services for the mentally retarded accounting for 12 percent of all Medicaid outlays. In 1984, ICF services for the mentally retarded averaged nearly \$30,000 per capita for the 139,000 Medicaid recipients of these services.

The entitlement of ESRD patients to Medicare had a striking impact on access to care for persons with kidney failure. With the implementation of the program, the number of enrollees being treated for ESRD rose rapidly, increasing from 16,000 persons in 1974 to 82,000 persons in 1983. The rate of growth has slowed, with the ESRD population increasing 9 percent in 1983 over the previous year. The presence of ESRD is notably high in minority people; people of all races other than white account for 32 percent of the ESRD population, whereas white people account for 68 percent.

Medicare per capita payments in 1983 were \$23,000 for ESRD enrollees. Despite the high per capita costs for ESRD enrollees, costs per enrollee have been growing at a much lower rate than that for the aged and the disabled, reflecting the fact that dialysis charges were set at a maximum rate in 1973 and remained unchanged until August 1983.

A salient feature of the ESRD program is the impact of different treatments. Persons undergoing transplantation have better survival rates and continue to work or attend school at a much higher rate than ESRD patients on dialysis. The recent use of the immunosuppressant drug, cyclosporine, has been shown to significantly improve the survival of kidney grafts.

The AFDC population is the largest category under Medicaid, consisting of families of children and mothers, eligible primarily because they are poor. These children and adults constituted nearly 68 percent of all Medicaid recipients in 1984, but accounted for only 25 percent of outlays. Prior to the implementation of Medicaid, the percentage of persons from families below the poverty level who saw a physician during the year was considerably below the level for persons from high-income families. In the past 20 years, disparities by income have essentially disappeared. In addition to the increase in the proportion of poor persons who saw a physician, the number of visits per person rose and, in 1980, the visit rate for the poor exceeded that for high-income families, reflecting the greater health care needs among the poor, especially in adult and older age groups.

Expenditures for the AFDC child who received services averaged \$418 in 1984. These relatively low Medicaid outlays reflect the fact that AFDC children are primarily healthy and expenditures for them are for relatively inexpensive ambulatory care services. In striking comparison, Medicaid outlays in 1984 for mentally retarded recipients in ICF facilities averaged \$30,000. Consequently, the total Medicaid outlay for the 10 million child recipients in the AFDC category (\$4.1 billion) was nearly equal to the expenditure for the 139,000 recipients of ICF/MR care (\$4.2 billion). Medicaid also served an additional 1.2 million children in 1984, categorized as "other Title XIX recipients" who are eligible as foster care, "Ribicoff kids," and other low-income medically needy children. Compared with AFDC children, per capita expenditures for these children averaged \$751 or nearly 80 percent more, reflecting the fact that the Medicaid program has the option of targeting to certain high-risk, noncategorical groups.

Because States exercise different options in their cash assistance programs and in their Medicaid programs, eligibility of the poor for Medicaid varies by State. In 1980, nationally, 58 percent of poor children under 19 years of age were covered part or all of the time by Medicaid. Although similar statistics for children are not available for the individual States, the ratio of the number of Medicaid recipients to the number of poor persons varies widely across States.

In the first two decades of Medicare and Medicaid, the overriding concern has been the escalation in health care expenditures. Between 1967 and 1984, national health expenditures increased from 6.4 percent to 10.6 percent of the GNP, and Medicare and Medicaid's share of the health care outlays rose from 15.0 percent to 26.7 percent of the total. From the perspective of the elderly, the implementation of the Medicare and Medicaid programs reduced their out-of-pocket expenditures as a percent of total per capita health care expenditures. However, as a result of the escalation in health care costs, the percent of income the aged spend out-of-pocket for health care now is essentially the same as before the programs were enacted.

In 1984, there were indications that the spiral in health care outlays was beginning to end. The Medicare hospital prospective payment system is generally believed to have contributed to this event, reflecting the fact that hospital days of care for Medicare patients represent 41 percent of the total. The development of future program policies is made more complicated by the rapidly changing health care sector. It is hoped that the downward trend in health care outlays will continue. The challenge in the new environment is to assure access and quality of care for the Nation as the rate of increase of health care expenditures is abated.

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