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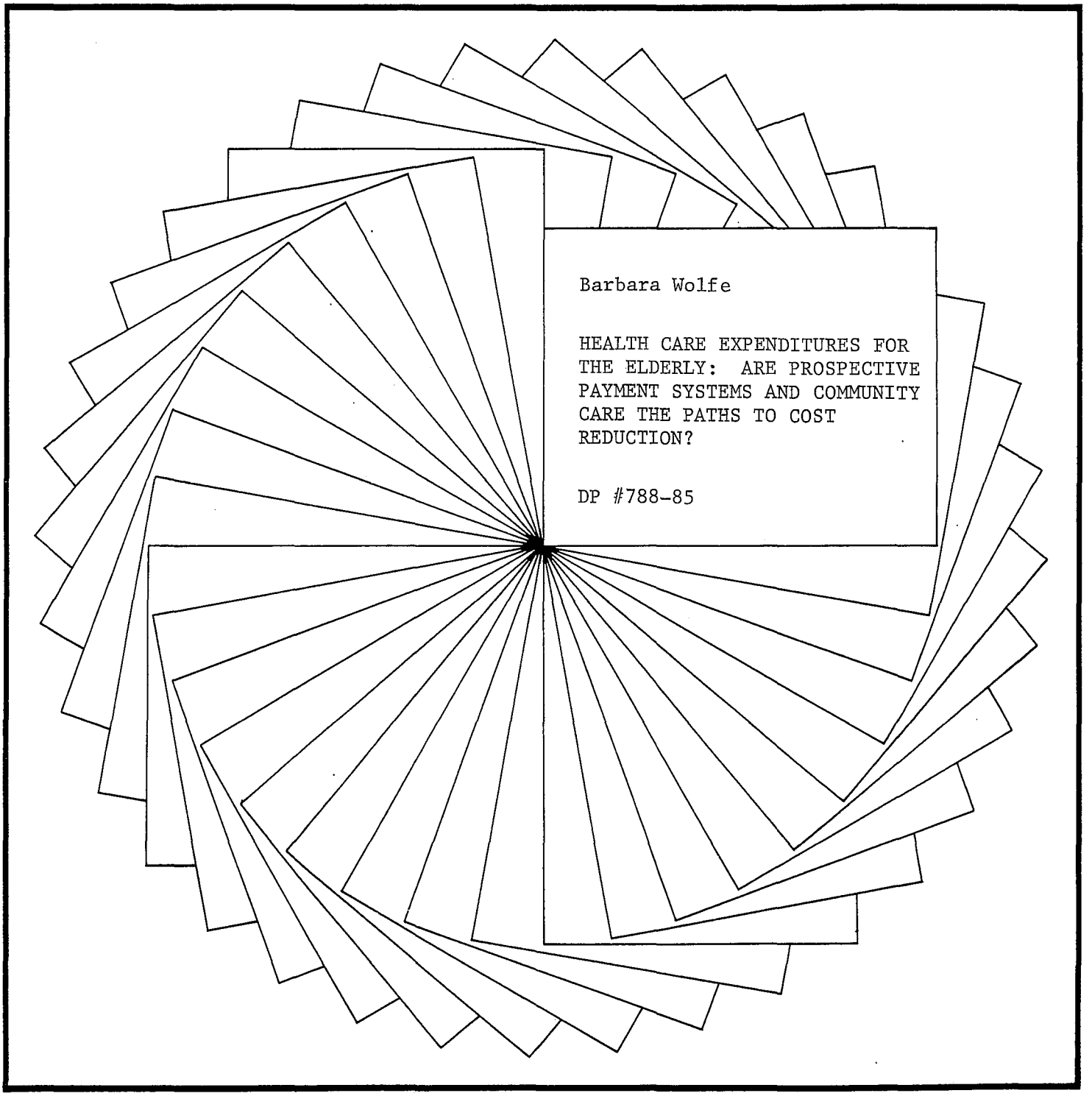

Institute for Research on Poverty
Discussion Paper No. 788-85

Health Care Expenditures for the Elderly: Are Prospective Payment Systems and Community Care the Paths to Cost Reduction?

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December 1985

Prepared as a contribution to the volume Assistance to the Elderly Population: A Cross-National Perspective, sponsored by Centro Italiano di Ricerche e d'Informazione Sull'Economia della Imprese Pubbliche e di Pubblico Interesse.

Abstract

This paper first reviews the past and prospective changes in the U.S. population of the elderly--their increasing share of the population as a whole, their increasing life expectancy, improved economic status, and increasing consumption of medical care. It then discusses the various kinds of health care available for the elderly and the costs of such care. The cost containment measures that have in recent years come into being are examined, and their advantages and disadvantages are weighed. The emerging issue of community provision of care for the elderly in their homes is then addressed; the demonstrations that have taken place are described; and the cost effectiveness of community care is evaluated. The paper concludes by pointing out that prospective payment systems, which seem to be containing costs, may themselves increase the need for community-based care, which has so far not proved cost effective.

Health Care Expenditures for the Elderly: Are Prospective Payment Systems and Community Care the Paths to Cost Reduction?

In the United States, a number of changes are affecting the size, life expectancy, health, and economic status of the population aged 65 and over. These developments have serious implications for health care policies, both public and private, toward this age group. This paper first describes the population changes, then discusses new approaches to health care financing and delivery.

PRESENT AND FUTURE STATUS OF THE ELDERLY

Population Size

The number of Americans 65 and older grew from 4 million in 1900 to 17 million in 1960, then to 27 million in 1982. By the year 2000 we can expect 35 million people to be over 64; by 2030, 55 to 66 million (Vogel and Palmer, 1982; U.S. Bureau of the Census, 1978, p. 23). As shown in Table 1, the elderly accounted for 9.2 percent of the population in 1960 and 11.7 percent in 1982, but they are projected to account for 13 percent of the population by 2000 and 20 percent by 2030. Depending on fertility projections, the ratio of those over 64 (retirement age) to working-age groups (18-64) may range from 1:2.5 to 1:3 by the year 2030.

Among those 65 and older, the proportion 75 or older and 85 or older has and will continue to increase. In 1960, those over 84 accounted for 5.4 percent of the elderly population (all of those 65 and over); by 1982

Table 1

Changes in the Elderly Population since 1950

	As Percentage of Total Population			
	All Aged	Aged 65-74	Aged 75-84	Aged 85+
1950	8.1	5.6	2.2	0.4
1960	9.2	6.1	2.6	0.5
1970	9.8	6.1	3.0	0.7
1980	11.3	6.9	3.4	1.0
1982	11.7	7.0	3.6	1.1

	Life Expectancy at Age 65		
	All	Male	Female
1950	13.9	12.8	15.0
1960	14.3	12.8	15.8
1970	15.2	13.1	17.0
1980	16.4	14.1	18.3
1982	16.8	14.4	18.8

Source: Health, United States, 1984, Tables 1 and 10.

they were 9.4 percent. Those aged 75-84 were 28 percent of the elderly in 1960 and 31 percent in 1982. The 85 plus group is projected to constitute 12 percent of the elderly by 2000 (U.S. Bureau of the Census, 1978).

This ever larger population of advancing age means increasing demands for health care services of both short- and long-term nature, and it indicates increased need for income maintenance.

Life Expectancy

Life expectancy at age 65 is steadily increasing (see Table 1): in 1960 it was 14.3 years, but in 1982 stood at 16.8 years. Both men and women's life expectancy are growing, although since 1960 that of women has risen more than that of men. By 1982 those figures had reached 14.4 and 18.8, respectively. Among those over 65, there are now 1.5 women to every man, and by 2000 it is anticipated that there will be 2.5 women over 85 for every man in this age group.

Disability

We have only limited data on the prevalence of disability and functional limitations among the U.S. elderly population. The figures that exist indicate an increase in functional limitations. A 1964 survey (Berg et al., 1970) found that 75.5 percent had no impairment; a 1972 survey (Nagi, 1976) found that 72 percent had no limitations; and several studies in 1975-76 (Butler and Newacheck, 1980; Okada, Stewart, and Lafferty, 1979; U.S. General Accounting Office, 1977) found that from 41 to 62 percent were free of limitations. A more recent set of surveys (the Health Interview Study; see Health, United States, 1983) suggests a

leveling off in disability among the elderly since 1976: in 1981, 45.7 percent of the population 65 and over reported some limitation of activity, whereas in 1976 that percentage was 45.4. Another measure, number of restricted activity days, remained at 40 per person per year between 1976 and 1981, while bed-disability days decreased from 15.1 to 14.0 over those same years. Together these data indicate a small increase in disability from the mid-1960s to the mid-1970s, then stability.

Economic Status

The economic status of the elderly has markedly improved in the past 20 years. In 1966 their average money income was 49 percent of that of all families; by 1980 it had increased to 63 percent, and in per capita terms stood at 90 percent of the average (Danziger et al., 1984). Over the period 1966 to 1981, the decline in poverty was greater for the elderly than for all other age groups. Moreover, improvement has occurred not only in accumulated personal income, but also in government transfers received. Those transfers include social security retirement income, publicly supported health insurance (through Medicaid, which is means tested, and Medicare, which is not), food stamps, and Supplemental Security Income, both of which are means tested. According to Danziger et al. (1984), those programs had raised the average well-being of the elderly (compared to their well-being without such transfers) by over 50 percent as of 1973. In 1960 retirement benefits under the social security system amounted to about 2 percent of U.S. gross national product (GNP); by 1980 that figure was 6 percent. In per capita terms, total income of the elderly after taxes was $4609, as compared to $4313 for the nonelderly, in 1973. This positive picture is somewhat offset

by economic inequality among the aged. Among elderly persons living alone, the very old and minorities have considerably lower incomes than others. (See Danziger et al. for more information on this topic.)

Medical Care and Nursing Home Usage

On average the elderly consume much more medical care than the nonelderly, a difference that has increased in recent years. In 1979, the number of inpatient (hospital) stays per 1000 persons was 156.9 for all ages, as compared to 389.5 and 342.5 for men and women, respectively, who were 65 or over (Health, United States, 1983). By 1982 the rate was 158.5 overall but 428.1 (men) and 379.1 (women) for the elderly (Health, United States, 1984). Inpatient operations increased similarly over this period, as did diagnostic and other nonsurgical procedures per 1000 persons--all age groups had such increases, but they were larger among the elderly. On the other hand, the average length of stay in short-term (acute care) hospitals decreased over this period, overall to some extent (from 7.2 to 7.1 days) but especially among the elderly (from 10.4 days for men and 11.0 for women to 9.86 and 10.3, respectively).

The U.S. government finances a large portion of health care expenditures for the elderly, primarily through Medicare. The percentage of GNP devoted to federal health care financing programs has increased from .3 percent in 1965, before Medicare and Medicaid were enacted, to 2.7 percent in 1982. It is projected to reach 3.9 percent in 2000 and 5.9 percent in 2030 (Palmer and Torrey, 1984). Medicare currently accounts for about two-thirds of these expenditures, but is projected to absorb 85 percent by 2030. Yet it pays less than half of all health care costs of the elderly.

PROVISIONS FOR HEALTH CARE FOR THE ELDERLY

Outside of Nursing Homes

The elderly compose about 12 percent of the U.S. population but account for a much larger share of health care services, including approximately one-third of all hospital days. About 20.5 percent had at least one hospital stay in 1978, and the average length of stay--days hospitalized (for those hospitalized)--was 10.1 per episode. As of 1981, the elderly averaged 6.3 physician visits per year, as opposed to 4.4 among those under 65. Eighteen percent had more than 10 physician visits per year. Estimates (National Center for Health Statistics, 1981, p. 69) suggest that 4.3 percent of those 65 and over who are not in nursing homes need personal care assistance, compared with 0.2 percent of those aged 18-44 and 1.0 percent of those aged 45-64. That proportion reaches nearly 18 percent for those 85 and over. Home management help, a lower level of assistance than personal care, is required by 7.2 percent of those over 64 and by 21 percent of those 85 and older. Medical care expenses are approximately 14 percent of the incomes of the noninstitutionalized elderly.

Much of this care is financed through two public programs, Medicaid and Medicare, both established in 1965. Medicaid provides coverage to those eligible for certain welfare programs, while Medicare is for those eligible for social security retirement benefits, which accrue from payments from own or spouse earnings over a certain specified number of years (or quarters of years). In 1967, Medicare expenditures were $4.5 billion, of which 69 percent went to hospital care; in 1982 payments were

$51.5 billion, and 72 percent went to hospital care. Enrollment increased from 19.5 million to 26.5 million over that period. Usage is not evenly distributed: about 11 percent of the elderly account for 78 percent of total reimbursement. From 1977 to 1982 Medicare hospital expenditures grew at a more rapid rate than overall hospital spending--18 percent as compared to 14.6 percent (Gibson, Waldo, and Levit, 1983). In 1982 about $2900 was paid out per insured person.

In Nursing Homes

Almost 5 percent of people 65 and older, and 20 percent of people 85 and older, were nursing home residents in 1977. About one-quarter of those over 65 could expect to be institutionalized at some time during the rest of their lives. Table 2 presents data on nursing home residents per 1000 population from 1963 to 1977. The percentage of institutionalized elderly nearly doubled over that period. The proportion of the very old (85 plus) peaked in 1973-74, then declined, whereas the proportion represented by those 65-74 steadily increased. As of 1978, three-fourths of all nursing home residents were 75 and over, and more than one-third were 85 and older (Statistical Reports on Older Americans, 1978).

One reason that people enter nursing homes is that they cannot carry out routine daily tasks. Home care that would help them do so is little used as an alternative. In early 1981 there were fewer than 3000 home care providers certified by Medicare and Medicaid. The Social Security Act of 1935 played a large role in both the growth of nursing homes (institutionalization) and the limited increase in home care (discussed

Table 2

Nursing Home Residents per 1,000 Population, 1963-1977

	Men	Women
1963--all 65+	18.1	31.1
65-74	6.8	8.8
85+	105.6	175.1
1969--all 65+	25.0	46.1
65-74	9.9	12.9
85+	130.8	247.6
1973-74--all 65+	30.2	55.5
65-74	11.3	13.1
85+	180.4	290.6
1977--all 65+	30.7	59.7
65-74	12.7	15.9
85+	140.0	251.5

Source: Table 49, Health, United States, 1983.

in more detail at the end of this paper). The federal government increased the supply of nursing homes through two pieces of legislation in the 1950s, first by extending the Hill-Burton Act, which subsidized hospital and nursing home construction, to nonproprietary (not-for-profit) homes, and second by insuring mortgages of proprietary (for-profit) nursing homes under the Housing Act of 1959.

Medicaid finances skilled nursing home care for the elderly poor. Its coverage was extended to intermediate care facilities (ICF) by the 1967 amendments to the Social Security Act. Medicaid is the largest public assistance program for financing nursing home care in the United States. In 1977 it was the principal source of payment for 48 percent of all nursing home residents, and another 8 percent was primarily supported by other government programs. Medicaid expenditures on nursing homes rose from less than $1 billion in 1967 to more than $12 billion in 1983 (Gibson, Waldo, and Levit, 1983).

Medicare pays for nursing home care (as well as hospital and other health services) for those eligible for social security retirement benefits. Until recently, nursing home coverage and certain home health services were only provided for limited periods to persons recently discharged from hospitals. That requirement, as well as a 100-visit cap on home health care, has been lifted, but coverage is still limited to patients who are home bound, need intermittent skilled care from a licensed professional, and have a physician-directed and updated plan of care. In 1977 Medicare was the principal source of payment for only 2 percent of nursing home residents. Its payments for nursing home care rose from $.2 billion in 1967 to only $.5 billion in 1983 (Gibson et al.,

1984), partly as a result of administrative reinterpretations to minimize these payments.

Total expenditures, public and private, for nursing home care were $500 million in 1962 and $29 billion in 1982. Public payments accounted for 49 percent, or $14 billion, of those expenditures in 1983, down from a peak of 56 percent in 1975. Nursing home care in general accounted for 9.2 percent of total personal health care expenditures in that year (Gibson et al., 1984). In constant dollar expenditures, nursing home expenditures are now growing at approximately the same rate as the population aged 75 and over.

Concern over Medical Costs in the Last Years of Life

Particular attention has been paid in recent years to the high cost of health care services rendered to the dying. A 1973 study (Social Security Administration, Office of Research and Statistics, 1973) of 1967 expenditures found that 22 percent of Medicare program expenditures went for 5 percent of enrollees who died in 1967. A recent study (Lubitz and Prihoda, 1984), using 1978 data, found a similar pattern: the 5.7 percent of Medicare enrollees who died in 1978 accounted for 28.2 percent of all program expenditures. That high rate reflects both a higher probability of use of medical care (92 percent by nonsurvivors as compared to 58 percent among survivors) and higher per capita expenditures on nonsurvivors ($4909 on the latter as compared to $1253 on average on survivors). While this difference also prevails during the second-to-last year of life of nonsurvivors, it becomes most intense as death approaches--an average of 30 percent of Medicare expenses on an individual in the last year of his or her life are spent in the last 30 days of

life. Much of this increased care occurs in hospitals--average hospital reimbursement for nonsurvivors was 7.3 times higher in the last two years of life than among survivors.

Health Insurance Coverage of the Elderly

As of 1977, 97.7 percent of the elderly were covered under Medicare, 12.3 percent under Medicaid, and about 68 percent had additional private insurance. Medicare and Medicaid do not cover the costs of all medical care. Given that fact and the large variation in private coverage, much variation in coverage exists; for example, only 41 percent of the elderly were covered for prescription drugs, 11 percent for dental services, and 14.6 percent for vision or hearing problems (National Health Care Expenditures Study, 1985).

Medicare has two parts: a hospital insurance program for inpatient hospital services, post-hospital skilled nursing and certain home health services; and a supplementary program for provider costs. (Provision for hospice care was introduced in 1983.) Everyone eligible for Medicare coverage has hospital insurance (covering part one). No premium is required. The supplementary medical insurance program covers physician services, medical supplies and services, home health visits, outpatient hospital services, and therapy. Enrollment for the supplementary services is voluntary and requires a premium payment designed to cover 25 percent of the costs of this part of the program. As noted above, before 1983 nursing home and home health care were covered only if preceded by prior hospitalization, and home care had a 100-visit limit. Both limitations have now been removed. Hospice care is covered only for the terminally ill.

Table 3

Medicare Cost-Sharing and Premium Amounts, 1966-1984

Beginning	Hospital Insurance: All Expenses in "Benefit Period" Covered Except				Supplementary Medical Insurance				
	Inpatient Hospital Deductible (IHD) Covers First 60 Days	Inpatient Hospital Daily Coinsurance: 61st through 90th Days (1/4xIHD)	Inpatient Hospital Daily Coinsurance: Lifetime Reserve Days after 90 Days (1/2xIHD)	Skilled-Nursing Facility Daily Coinsurance after 20 Days (1/8xIHD)	Monthly Premium[a]	Annual Deductible	Coinsurance	Monthly Premium: For Enrollee (Aged and Disabled)[b]	Monthly Premium: Government Amounts for Aged	Monthly Premium: Government Amounts for Disabled[b]
	Beginning as noted				July	Beginning July unless otherwise noted				
July 1966	$40	$10	c	c	—	$50	20%	$3.00	$3.00	c
April 1970	52	13	26	6.50	—	50	20%	5.30	5.30	c
April 1980	180	45	90	22.50	78	60	20%	9.60	23.00	41.40
April 1984	356	89	178	44.50	155[d]	75	20%	14.60[d]	43.80[d]	94.00[d]

Source: Social Security Bulletin, Annual Statistical Supplement, 1983, Table M, p. 36.

[a]Voluntary participation of individual aged 65 or older not otherwise entitled to hospital insurance.

[b]Beginning July 1973 for the disabled.

[c]Benefit not provided.

[d]Beginning in January.

Medicare requires beneficiaries to pay a considerable share of covered services, as shown in Table 3. In 1978 it paid 69 percent of the hospital and physician expenses of the elderly, but this amounted to only 44 percent of their total health expenditures. Medicaid contributed another 14 percent, and all other public sources paid for about 6 percent. Two-thirds of the elderly also have private insurance, which is more common among the employed and decreases with age.

In sum, the situation in the United States as of early 1980s was as follows:

--The proportion of elderly persons, as well as of the very old, has increased and is expected to continue to do so over the next several decades.

--The economic status of the elderly has steadily improved and is now similar in real terms to the nonelderly.

--The demand for short-term and long-term institutionalized care has increased substantially as a result of the increased numbers of the elderly, their improved economic status, and third-party funding of such care.

--Expenditures for medical care and nursing homes for the elderly have increased dramatically, absorbing an ever greater share of GNP.

--Hospital care in 1983 accounted for the greatest share of the medical care dollar (47 percent). Nursing home care represented only 9.2 percent, but a greater share of it was covered under public programs. Over 70 percent of Medicare benefits were for hospital care in 1983; 40 percent of Medicaid benefits were paid to hospitals, 37 percent to nursing homes.

All of these factors have led to a search for ways to hold down the rate of increase of medical care and nursing home care expenditures. The search has taken several forms, aimed principally either at hospitals or at limiting nursing home expenditures. The balance of this paper discusses changes that have been undertaken in the attempt to restrain health care expenditure.

COST CONTAINMENT MEASURES

Through the latter part of the 1970s, strong support existed for improving health care programs both for the poor and the elderly. Gradually, however, concern shifted from equity to expenditure containment; control of expenditures became a priority of federal and state governments. Programs were cut back, and reimbursement formulas changed.

Before 1980, Medicare and Medicaid reimbursed doctors according to what was "usual, customary, and reasonable" in a community. Doctors who regularly charged more were paid more. Hospitals were also reimbursed according to their costs. In 1981, the U.S. Congress allowed states to move away from cost-based reimbursement for Medicaid services, and in 1982 and 1983 a prospective payment system (PPS) was introduced nationwide for Medicare. This PPS reimburses on the basis of diagnosis-related groups, or DRGs. That is, a set amount is paid for treatment under any of 467 carefully defined diagnoses which adjust for patient diagnosis, patient age, treatment procedure, discharge status and sex. These changes were enacted through the Tax Equity and Fiscal Responsibility Act of 1982, which altered Medicaid reimbursement by placing limits on total inpatient costs per admission, and by Public Law 98-21 in 1983, which set up the diagnosis-based payment system. Two other changes were also introduced: (1) Medicare coverage was extended to federal employees, and (2) coverage was extended to hospices for treating those with a life expectancy of 6 months or less. Expenditures are estimated at $148 million for fiscal year 1984 under this program.

Hospital Costs

As indicated earlier, hospital expenses are the largest component of the nation's health bill, and an even larger share of the Medicare bill. The continuing growth of hospital costs through rates far higher than overall inflation, and even more dramatic increases in Medicare expenditures, led to the effort to control hospital costs. The search focused on setting hospital rates prospectively. A large number of states had experimented with some form of prospective rate-setting, and the evidence from some suggested that mandatory rate-setting succeeded in reducing the rate of increase of hospital expenses. There was more evidence that it reduced costs per day and per admission than health care costs per capita. A prospective payment system was introduced for Medicare in 1983, replacing retrospective cost-based reimbursement. The system pays hospitals on an admission or case basis, using DRGs to give hospitals an incentive to reduce costs per admission. Before describing the Medicare payment system, we will outline the several uses of DRGs in hospital reimbursement systems.

The most direct application of DRGs is to set preadmission rates for each diagnostic category. New Jersey's current hospital reimbursement program essentially uses this approach. The New Jersey Department of Health established nearly 400 DRGs, taking into account health problems, age, and presence of complications. Each hospital in the state has an individual payment rate for each DRG, which when multiplied by the expected number of cases yields total reimbursable patient care costs. When these costs are added to other costs of the hospital (e.g., overhead, mixed direct/indirect costs) total reimbursable costs for the hospital are obtained. The amount of actual revenue collected by a

hospital during its rate year may in fact differ from the amount approved in its preliminary cost base at the start of the rate year, since the preliminary base uses a series of assumptions and forecasts relating to volume, case mix, and other factors that could affect revenue. At year's end, a reconciliation is reached between the hospital and the state's department of health. At that time adjustments in the next year's rates are made to account for differences between actual net revenue and approved net revenue.

A second method of using DRGs for reimbursement is to construct a relative value scale, known as a scalar index, that weights each DRG by its average cost across hospitals as compared to other DRGs. Retrospective data are collected across hospitals on length of stay and cost of care of patients in each DRG. Average costs are then used to compare DRG A to DRG B, etc. The average cost of all DRGs is set equal to 1; all others are set relative to it; thus, if the average cost of all DRGs were $1000, and the average cost of DRG 110 were $800, its weight would be .8. Used this way, DRGs can be a scalar measure of the relative costliness of the inpatient cases treated in a particular hospital as compared to those treated in the average or typical hospital in the state or nation. A hospital with an index value of 1.32 should have an inpatient case load that requires 32 percent more resources than the patient load in the average hospital. The index for a particular hospital is a weighted average of its individual DRGs, each of which has a relative cost value, and is thus a function of the number and type of DRGs it experiences. The hospital's prospective revenue allowance is, in essence, the product of its average DRG weight--the relative cost of the

hospital's average discharge--times its expected number of discharges. The U.S. Health Care Financing Administration has used this approach in developing a prospective payment system for Medicare.

These two methods (New Jersey and HCFA) use all hospitals in the state (as in New Jersey) or nation as the basis for setting rates. A hospital's reimbursement is directly related to how its costs, by DRG, compare to the costs of other hospitals. A third approach involves placing a cap on revenues across all diagnoses for a single hospital, thus creating a different base for comparison. A hospital is not compared to others, but to its performances in its base year. This approach is similar to that being used by Maryland's Health Services Cost Review Commission.

The DRG System in Practice

Under the Medicare DRG system, a relative value scale using data on a 20 percent nationwide sample of Medicare patients has been developed, but it is then multiplied by a specific hospital reimbursement rate to determine the hospital's reimbursement for each DRG. These rates depend on the amount of teaching done at the hospital, area wages, and certain geographical considerations. Under this system, a hospital is paid the same amount for each Medicare patient in a DRG, regardless of actual costs. If a hospital spends less, it makes a profit; if it spends more than the DRG amount, it incurs a loss. The fact that Medicare recipients account for about 40 percent of all patient days in short-term hospitals means that hospitals are under pressure to change their mode of operation. The relative weights of DRGs (which are updated at least every

four years to account for technological change, etc.) compared to costs of care determine the profitability of one DRG compared to any other. DRGs that are heavily influenced by number of patients (where there are large economies of scale) may lead some hospitals with small numbers of patients treated for that DRG to close certain services that would not be profitable. More profitable DRGs may increase hospital marketing.

There are certain dangers inherent in this prospective payment system, because it provides several incentives:

1. To recode patients into higher-paying diagnostic categories, a procedure termed "DRG creep."
2. To discharge patients early (and sometimes subsequently readmit them).
3. To avoid the most seriously ill patients.
4. For hospitals to attract physicians who bring in higher-paying, non-Medicare cases.
5. To shift costs to other institutions, such as nursing homes or home care, which means no real savings in societal medical care costs.
6. To provide too little care by focusing on care where the net revenues are positive.

The government has set up mechanisms to limit (1) and (2). The system is designed to be fiscally neutral, and if hospitals tend to place patients in higher categories (DRG creep) the government simply lowers the base rate. Readmissions are monitored through random checking and a peer review system. The peer review group also plays a role in point 6.

A further complication in the system is that capital costs are compensated separately. This may create an incentive to substitute capital for labor.

Some states are actively pursuing prospective payment for other third party payors. States either are passing legislation setting up a prospective payor system for all payors (all-payor systems) or for a subset, such as private insurance companies. That is, states set up a prospective rate schedule which is used by private insurance companies, health maintenance organizations (HMOs), private individuals, Medicaid, etc.--all payors--to pay for inpatient care. The payment base differs by state (only a few use diagnosis-based prospective payment), but all of these states have prospective systems where rates are set in advance of service, and do not vary in regard to the actual level of service delivered to a patient. The disadvantage of an all-payor system is that insisting on standardizing payment limits the effectiveness of competitive organizations such as capitation plans (HMOs), which provide all medical care to those enrolled and which must pay the same to hospitals as traditional fee-for-service plans. This limits their ability to reduce the cost of medical care. All-payor systems have an equity advantage over those which only cover a subgroup of patients such as Medicare patients, since hospitals differ in the percentage of Medicare patients served--and therefore differ in exposure to the financial squeeze of a Medicare-only prospective payment system.

All of these plans use past costs to establish prospective rates. This builds in the old inefficiencies. Another drawback is that DRGs categorize patients by type of care received. Thus a person with a blocked artery who was treated medically would be placed in a different DRG from one who was treated surgically. This limits the incentive to use less costly care (i.e., medical care for surgery) for a health problem,

instead subjecting hospitals to incentives to use fewer resources once the primary treatment mode is established.

Despite these potential negative effects, DRGs appear to be generally successful in terms of reducing medical expenditures without lowering health status. The average length of hospital stay for Medicare patients has decreased--in 1983 by 4 percent, the largest decline in 10 years. Admission rates increased in 1983 by 4.7 percent, slightly below the average increase over the past 10 years. The overall result is an increase of .1 percent in utilization, significantly less than the average increase of 3.5 percent between 1974 and 1982 (Gibson et al., 1984).

In some individual cases, however, there are indications that DRG payments have lead to inappropriate and premature discharge of patients from hospitals and that seriously ill patients have been denied admission (U.S. Senate, Special Committee on Aging, 1985). These cases are described as those with multiple and often chronic conditions which may be unrelated to the primary diagnosis. The care for such patients leads to hospital losses, since the DRG payments do not take into account the full severity of patient's conditions and thus do not reflect the cost of actual care.

On the positive side, hospitals in general have reduced their staffs, they now bargain hard with medical supply firms, and they have invested in computers for the purpose of cost calculations. Administrators are lecturing staffs about cost consciousness, and physicians have been urged to reduce ancillary services such as diagnostic tests, or to have such tests performed outside of the hospital, before admission (the latter merely shifting this site and financing of care rather than reducing

care). The type of medical supplies being purchased has moved toward increased use of generics instead of name brands, and disposable supplies are being reused where feasible.

Community Care as a Substitute for Nursing Homes

The increased number of elderly persons in the population and, among them, the increasing number of those of very advanced age, means a greater number of people who are limited in the activities of daily living--some with severe limitations--thus increasing the demand for long-term care, including medical services, nursing care, mental health care, and social services to relieve the effects of illness and to maintain or enhance functional capacities. For some, all that is needed is routine types of help with the activities of daily living; for others, high technology and acute medical care are required. Housing needs range from independent living through congregate housing, intermediate-care nursing homes, skilled nursing homes, and general hospitals. The demographic trends will in all probability put considerable strain on the long-term health care system, especially since there are doubts concerning the ability of the system to provide an efficient match of services to meet individual needs. Two basic problems "explain" the inefficiency of the United States long-term care sector: (1) financial incentives that favor institutional care, and (2) lack of information on available services and eligibility for services, largely due to the diversity of agencies that administer such services.

One of the financial incentives stems from the fact that Medicaid has more restrictive income and eligibility standards for granting benefits

to those not in institutional settings. Impaired elderly persons may have incomes above the Medicaid eligibility level for community care yet may lack the income to meet their medical and nonmedical needs. Frequently their only alternative is to resort to institutional care financed by Medicaid. The result is that a number of persons who do not require institutional care nevertheless enter institutions.

Another financial incentive results from the restriction of Medicare coverage to relatively expensive medical services. Patients therefore utilize those services, since doing so costs them less. The rationale for limiting coverage to medical care in existing programs is to control health expenditures--that is, to limit the numbers receiving care to that ordered by the medical profession. Surveys have suggested that the elderly would prefer to live at home (Laurie, 1978) and that fuller coverage of home services would lead to greater increased demand for such services; one alternative to the medical model as a rationing device is to use restrictive income standards for the noninstitutionalized population, as is done by Medicaid. Thus both means testing and using the medical system as an entry point for eligibility for covered benefits limits reimbursement, and are ways the government has traditionally attempted to constrain costs.

In an effort to hold down institutionalization, states have introduced limits on reimbursement rates and nursing home construction and expansion. The consequent shortage of nursing home beds has increased the number of patients who could be in a nursing home--the functionally impaired--but who have remained in acute care facilities (hospitals), which cost more than do nursing homes.

Lack of information, or coordination of information, also plays a role in increasing institutionalization. Programs to provide services to impaired elderly persons in their homes and communities rather than in nursing homes have frequently been administered by diverse government and private agencies. This lack of coordination is particularly marked between the delivery of medical and social services. The result is that persons enter nursing homes as the simplest alternative, or because there is not adequate care available in the community.

The need to control public nursing home expenditures, along with the personal preferences of a number of elderly to live at home, has led to pressure to change the situation described above. Several "experiments" have been tried.

Home and Community Care Experiments

The first such efforts, in the early 1970s, usually employed an individual case-management approach. That is, the experiments involved examining elderly persons who were considered to be at risk of nursing home placement and considering what services would be necessary to keep them out of the home. This package was compared to the cost of nursing home care. The general conclusion was that community services could be provided at a cost below (or equal to) that of a nursing home. All of these calculations were based on the assumption that community care patients would be in nursing homes if the community services were not provided. This is not the case, since some remain noninstitutionalized without adequate care or services, and these studies were criticized for these assumptions.

A subsequent group of demonstrations increased available community services, receiving waivers from Medicare/Medicaid requirements to do so, and tried to select participants at considerable risk of institutionalization. These projects differed in the services provided and the narrowness of their targeted populations. Their results were generally negative, in cost terms: there were no significant reductions in nursing home placement or in days hospitalized. One such demonstration was in Wisconsin, where projects were conducted at three separate sites, each devising its own project. Another was in Georgia, where alternative health service projects were administered in 17 counties by one state agency, offering regular Medicaid-financed health services, adult day rehabilitation, home delivered services and alternative living services. In Connecticut, a triage project provided a broad range of services to the elderly, emphasizing prevention. The Connecticut project was like a social maintenance organization, providing care "as appropriate" to the elderly. A single agency served as entry point to the health delivery system for the elderly, and this agency coordinated care for elderly persons in a seven-town area, with an eligibility population of 20,000.

The most recent phase of experimentation began in 1980 with a $20.5 million project to test "channeling," which represents an effort to use the entire range of community services that may be required for a client needing long-term care. It is designed to test a comprehensive management approach to community care for the elderly. The targeted population contains those at high risk of institutionalization--the severely impaired elderly. The goal is to substitute community services, both formal and informal, for institutional care whenever appropriate. The effort involves outreach and case funding, including public information

and a referral network, screening, comprehensive assessment and reassment, and case management including individual care plans.

Another initiative recently pursued by the U.S. government is represented by social/health maintenance organizations (S/HMOs). These are prepaid capitation delivery systems designed to meet the needs of the disabled and/or elderly. The elderly are enrolled voluntarily into a S/HMO, which provides basic acute hospital services, nursing home ambulatory medical care, and personal care support services, including home makers, home health and chore services. One provider is directly responsible financially for all of these services. Financing is from a combination of public funds and private payments. The S/HMO demonstrations, now underway, hope to show that the incentives of this system lead to efficient integrated services for the elderly. A larger effort is a push to enroll the elderly Medicare population in HMOs. Here the financial risk is transferred to the HMO, which is both provider and insurance company. The success of this effort depends largely on the success of establishing appropriate capitation rates for the elderly.

And finally, seven private foundations are now collaborating to initiate (fall 1985) an alternative care program, termed the Living-at-Home-Program. It will fund nonprofit community or government groups at 17 sites, providing alternatives to nursing homes. It is not yet clear how these programs will differ from earlier demonstrations.

The salient result from demonstrations to date is that community-based long-term care can no longer be defended on the grounds that it is cost effective. It rarely reduces hospital use or nursing home placements, its benefits are limited, and it has raised overall use of services and therefore expenditures. In a recent paper entitled "Seven

Reasons Why It Is So Difficult to Make Community-Based Long-Term Care Cost-Effective," William Weissert (1985) offers several explanations for the higher costs of community care:

1. Most persons who use community and home care would not otherwise have gone into nursing homes. Since most users are not using community services as a substitute, but rather to add to their living standard, community care adds new costs--it becomes an add-on to existing services.

2. The few who avoid nursing home placements would only have had short stays there. They are functioning persons who may have had a temporary impairment, such as a fracture, as opposed to a mental illness. Long-term patients with multiple problems are unaffected.

3. Even when nursing-home savings are achieved, they are too small to offset community care costs.

4. The number of persons at high risk of institutionalization within a community at any point in time is very small--at a maximum, approximately 2.5 percent of the population. This means that it is difficult (and expensive) to find and serve the high-risk population.

5. As a result of 4, the costs of screening and assessments of the potential nursing home population is high.

6. If only those at risk of institutionalization are served, there are not many eligible participants, and the per-person cost of operating community care is high.

7. Evidence from measures of longevity and physical and mental functioning suggests that community care has limited effectiveness on participants' health status.

To counter these negative points, there is some evidence that participants are more content. The current view therefore seems to be that if community care is to gain support it must be argued that it provides services to a group in need, not that it is a substitute for nursing home care. The elderly population has a large number of persons not sick enough to enter nursing homes, but sick enough to need care beyond episodic direct medical care.

CONCLUSION

Health care provision for the elderly is undergoing serious changes in the United States. Sparked by rising expenditures, in particular for hospital and nursing home care, and the expectation that these trends will accelerate owing to demographic pressures, new initiatives have been and are being undertaken. Two basic innovations are the switch to prospective reimbursement by Medicare and a series of demonstrations to increase community and home care as alternatives to institutionalization.

Preliminary evidence suggests that DRGs are leading to lowered rates of hospital-based resource use, while community care demonstrations find that this form of care is not a cost-effective alternative to institutionalization, though it does provide other benefits to the noninstitutionalized, but functionally impaired, elderly.

It is somewhat ironic, however, that DRGs may themselves increase the need for community-based care. As patients are released earlier from hospitals, and as more care is provided outside of hospitals, there is increased need for home and community care of patients who require varying levels of skilled care. The informed public is just beginning to perceive the consequences of prospective payment, and to recognize that reduced expenditures in one sector (hospitals) may mean not overall reductions in expenditures, but their reallocation. Viewed in this way, community care may need to be reappraised--as a substitute for hospital care as well as nursing home care and perhaps family care. It is unlikely that we are in an equilibrium situation--but, as the political power of the elderly and near-elderly increases, it is likely that community-based care will increase and that DRGs will be modified to

better account for patient severity differences, thereby reducing the incentives to exclude the severely ill from hospitals or to release them prematurely.

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