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BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Chairman Of The Subcommittee On Health And The Environment, Committee On Energy And Commerce House Of Representatives

Medicaid And Nursing Home Care: Cost Increases And The Need For Services Are Creating Problems For The States And The Elderly

Nursing home care is the most expensive component of Medicaid: the majority of the Nation's elderly who are in nursing homes rely on this Federal and State program to pay for their care. GAO finds, however, that the availability of nursing home services varies widely from State to State. Some elderly are unable to gain access to nursing homes, and others appear to use them unnecessarily.

GAO finds two conflicting trends in the national data on nursing homes. The first involves a growing need for services: the elderly who now reside in nursing homes are becoming increasingly disabled and dependent while the number who may need to enter them in the next decade is likely to increase. The second is that most States are trying to keep their Medicaid costs down by limiting reimbursement or the supply of beds or both.

Recent policy changes may sharpen this conflict. The new Federal Medicare hospital reimbursement system may unintentionally increase the problems of Medicaid patients waiting in hospitals for nursing home beds. Federal and State cost containment efforts may diminish the quality of nursing home care. Moreover, there are gaps in basic data on program differences across the States, the use of and need for services nationally, and the actual number of hospitalized patients awaiting nursing home beds. These gaps undermine efforts to predict the effects of policy changes on Medicaid expenditures and on the provision of nursing home care to the Nation's elderly.

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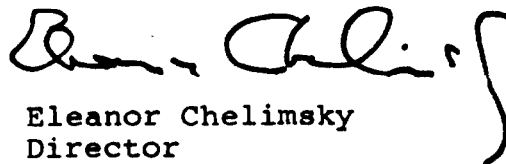122865

GAO/IPE-84-1
OCTOBER 21, 1983

B-213126

The Honorable Henry A. Waxman
Chairman, Subcommittee on Health
  and the Environment
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

   This report summarizes the results of review by GAO's
Institute for Program Evaluation of Medicaid's nursing home
services for the elderly. As you requested, the report presents
a comprehensive review and analysis of several factors related
to nursing home care. These include the characteristics of
nursing home residents, trends in the use of nursing home care,
differences in State Medicaid spending for this care, the
national distribution of nursing home beds and its impact on
users and Medicaid expenditures, State reimbursement policies,
and problems in Medicaid patients' access to care. Our findings
from this analysis were presented in testimony on May 23, 1983,
at your request.

   We sought comments on the report from the U.S. Department
of Health and Human Services. The response is included in the
report as appendix XIII. As arranged with your office, unless
you publicly announce the report's contents earlier, we plan no
further distribution of this report until 14 days after its
publication date. At that time we will send copies to the
Secretary of Health and Human Services, the chairmen of congres-
sional committees that have primary responsibilities for matters
concerning health and aging, and others who are interested and
request them.

                              Sincerely,

                              Eleanor Chelimsky
                              Director

GENERAL ACCOUNTING OFFICE
REPORT TO THE SUBCOMMITTEE ON
HEALTH AND THE ENVIRONMENT
COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

MEDICAID AND NURSING HOME
CARE: COST INCREASES AND
THE NEED FOR SERVICES ARE
CREATING PROBLEMS FOR THE
STATES AND THE ELDERLY

D I G E S T

'Nursing home care for the elderly is the most
expensive of the long-term health care services,
and Medicaid is the largest single payer for
this care. Medicare and private insurance pay
for a negligible portion. Because the cata-
strophic costs of long-term institutional care
often exceed the financial resources of the
elderly, the Federal and State Governments share
the responsibility for insuring that Medicaid
provides adequate and efficient nursing home
care to the people who need it but cannot pay
for it. This review raises questions about
whether State Medicaid nursing home programs
have an incentive to use the health care system
efficiently, if all persons needing Medicaid
nursing home services have access to them, and
if sufficient information will be available to
plan effectively for the long-term care needs
of the elderly population.

In 1981, nursing home care cost the Nation more
than $24 billion. The most recent data available
indicate that Medicaid has been paying for about
45 percent of this care. More than one third
($7.9 billion) of all Medicaid dollars ($23.2 bil-
lion) in fiscal year 1980 were spent on nursing
home care. Medicaid nursing home expenditures
grew at an average annual rate of 14.5 percent
from 1976 to 1980, faster than the rate of growth
in the rest of Medicaid. The Federal Government
pays from 50 to 78 percent of the States' costs
in providing medical care through Medicaid to
eligible low-income individuals and families.
Currently, the States are restricting nursing home
bed supply or tightening reimbursement policies or
doing both to slow the growth in their spending
for Medicaid nursing home services.

The Chairman of the Subcommittee on Health and
the Environment of the House Committee on Energy
and Commerce asked GAO to assess the Medicaid
program across the States to provide information
on such factors as the characteristics of nurs-
ing home residents, program expenditures, bed

GAO/IPE-84-1

supply, and reimbursement policies. To answer
the request, GAO interviewed people in government
agencies, universities, research organizations,
advocacy groups, and the nursing home industry
and surveyed Medicaid officials in 49 States
and the District of Columbia. GAO also
analyzed the differences in State spending for
Medicaid, using data from the U.S. Department of
Health and Human Services. In addition, GAO
added depth and specificity to the national
data on the characteristics of nursing home
residents by analyzing longitudinal data from
the Minnesota Department of Health.

CHARACTERISTICS AND TRENDS OF THE POPULATION MOST LIKELY TO USE NURSING HOME CARE

Most nursing home residents have been identi-
fied as functionally dependent or mentally im-
paired or both; they also often have very long
stays (an estimated average of 2.5 years).
Residents with long stays are also more likely
to be women, unmarried, diagnosed as having
mental illness or being senile rather than
having other chronic conditions, and supported
by Medicaid. In addition, the data suggest
that nursing home residents, as well as new
admissions to nursing homes, have become
functionally more impaired over the past
several years and may have more intensive
care needs.

GAO's review of the characteristics leading
to nursing home use indicates that the future
at-risk population will grow. While increased
community-based services and preadmission
screening may postpone entry into nursing homes
for some portion of the at-risk population,
they could, at the same time, result in high-
er dependency levels and care needs for the
elderly people who do enter nursing homes.

DIFFERENCES IN STATE SPENDING FOR MEDICAID NURSING HOME CARE

Medicaid expenditures for nursing home care are
already of major concern to the States and the
Federal Government because they have increased
at a high rate in the past. Virtually all the
States have problems financing this program.
How much they spend for this service, however,
varies substantially.

GAO used Medicaid nursing home expenditures as the best available proxy for comparing differences in State Medicaid nursing home services. While not all elderly are likely to use nursing home care equally across the States because different factors may affect their demand for it, GAO's analysis indicates that some States clearly spend more Medicaid nursing home dollars for each elderly resident than other States. Even when 1980 State and local expenditures are adjusted for differences in State nursing home wages, the State spending the most ($274) for nursing home services for each elderly resident spent eight times as much as the State spending the least ($34).

GAO found that the Federal medical assistance percentage, designed to compensate for disparities in State fiscal resources, does result in increases in spending for nursing home services in some poorer States. However, the analysis also indicated that adding the Federal contribution to each State's spending for each elderly resident did not equalize expenditures across the States. Overall State nursing home spending variation was reduced by only about 8 percent.

STATE VARIATION IN NURSING HOME
BEDS AND THE EFFECT ON USERS

States varied widely in their bed/population ratios in 1980 from a low of 22 beds per 1,000 elderly persons in Florida to a high of 94 in Wisconsin. GAO's survey data also indicated that nursing home bed supply increased an estimated 2.9 percent annually between 1976 and 1980. This was slower than the rate of growth that occurred between 1963 and 1973 (8.1 percent annually).

About half the members of a group identified as highly likely to use nursing home care--individuals who are age 75 or older, unmarried, and dependent in "toileting" and eating--were in nursing home beds in the District of Columbia and 9 States--the jurisdictions with the lowest bed/ population ratios. However, about 90 percent of the persons with these same characteristics were in nursing homes in the 10 States with the highest bed/population ratios. This may indicate that there is an inadequate supply of beds (or inadequate access to beds) in the lowest-bed

States or an overuse of nursing home services in the highest-bed States or, most likely, a combination of both.

Regardless of whether States currently have high or low bed/population ratios, several are trying to control their bed supply because of its relationship to Medicaid expenditures. This is occurring despite indications that nursing home occupancy rates are high nationally and that the annual growth rate in bed supply has not kept pace with the annual growth rate in the number of the heaviest users of nursing home care (those 85 and older) in recent years.

MEDICAID REIMBURSEMENT POLICY FOR NURSING HOME CARE ACROSS THE STATES

The States reimburse nursing homes through the Medicaid program in many different ways. And, across the States, the range of reimbursement rates for ostensibly similar services is very wide. The diversity makes comparisons difficult.

GAO finds that most State reimbursement systems are not designed to pay for the cost of each patient's need for care. Most States have set limits on Medicaid payment rates, so that most nursing homes have an economic incentive not to admit patients for whom the cost of care will be high. Furthermore, many States have revised their reimbursement systems since 1980 in an effort to keep costs down.

While cost control efforts may produce more efficient care delivery, at the same time they require that States insure, through appropriate mechanisms, that the quality of nursing home care is maintained. Quality, however, has been difficult to define, and designing the appropriate incentives to guarantee quality care has been problematic. Few States have directly linked payment levels to the quality of care provided.

PROBLEMS IN MEDICAID PATIENT ACCESS TO CARE

Patient characteristics and care needs, combined with States' Medicaid nursing home and

bed supply policies, have helped create an
access problem for some Medicaid and poten-
tially Medicaid-eligible patients in need of
nursing home care. Limited data are available,
however, to assess the extent to which access
problems exist, how they compare across States,
or how effective Federal and State statutes and
regulations have been in alleviating them.

One measure of the access difficulties Medicaid
patients experience is that many wait in hos-
pitals (often paid for at the higher acute care
rate) because they cannot gain access to a
nursing home. Every year, it is estimated that
Medicaid and Medicare pay for between 1.0 mil-
lion and 9.2 million days of hospital care for
patients who require nursing home care instead.
The care requirements of these patients and the
inadequacy of Medicaid nursing home reimburse-
ment rates in covering the cost of their care
are considered among the most important reasons
for this situation.

Recent legislative changes have been made to
Medicare hospital reimbursement to strengthen
hospital incentives to discharge patients
sooner. If hospitals respond to these incen-
tives by placing convalescent Medicare patients
in scarce nursing home beds, problems in plac-
ing heavy care Medicaid patients may increase.
Problems may also occur for patients if they
are discharged by hospitals too quickly to
nursing homes that cannot provide the level of
care they require.

Attempted solutions to the access problem are
complex and their effectiveness is yet to be
determined. Some proposals include providing
reimbursement incentives to nursing homes to
admit heavy care Medicaid patients, expanding
nursing home bed supply, and using extra hos-
pital capacity for long-term care. All three
would increase Medicaid expenditures.

CONCLUDING OBSERVATIONS

GAO's data on bed supply trends indicate that
nursing home bed supply is unlikely to increase
rapidly, given current State incentives to pre-
vent it. This suggests that improvements are
needed in the efficiency with which Medicaid
nursing home services are provided across the
States: the elderly who are in need of long-

term care should be assisted to remain in the community as long as possible and economically feasible and the elderly who are most in need of nursing home services should be able to receive them.

GAO's data on patient characteristics indicate that preadmission screening by Medicaid, expanded use of community-based long-term care services, recent changes in Medicare hospital reimbursement, and other factors will reinforce the trend of a nursing home population with potentially increasing dependencies and care requirements. Reimbursement systems and other appropriate mechanisms need to be developed to accommodate this changing population and to insure cost efficient and high-quality care delivery.

GAO finds that data are lacking on whether Federal and State efforts to use the Medicaid home and community care waiver provision, preadmission screening, and other such mechanisms are sufficient to insure that individuals who could be served appropriately at less cost in their own homes or other settings are able to avoid entering nursing homes.

Because the number of nursing home beds has a direct effect on Federal and State Medicaid expenditures for nursing home care, additional information is needed for addressing conflicting findings on the wide range of bed supply across the States and for determining whether this variation creates a problem for those who need nursing home care the most.

Current research and information are inadequate for identifying the best way to provide incentives to nursing homes to admit patients who have extensive care requirements and to establish controls that will insure that increases in Medicaid's reimbursement rates to cover heavy care patients are accompanied by an acceptable level and quality of care.

Information on the number and characteristics of hospitalized patients awaiting nursing home beds would help establish which approaches or combination of approaches to providing long-term care services (e.g., in hospitals, in nursing homes, or at home with home health care) are most cost-effective for different types of patients.

There are major gaps in information on the most basic components of Medicaid's support of nursing home care, which caused serious problems in GAO's efforts to assess the program across the States. Data on the care needs of the persons served, patient days, expenditures, beds, and levels of care are generally outdated, unreliable, or unavailable.

HHS has concurred with GAO's assessment of the Medicaid program and with GAO's concluding observations on continuing information requirements.

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ABBREVIATIONS

AFDC	Aid to Families with Dependent Children
APWA	American Public Welfare Association
CON	Certificate of need
DRG	Diagnosis-related groups
GAO	U.S. General Accounting Office
HCFA	Health Care Financing Administration
HHS	U.S. Department of Health and Human Services
HIS	Health Interview Survey
ICF	Intermediate care facility
ICF-MR	Intermediate care facility for the mentally retarded
MFI	Master Facility Inventory
MMACS	Medicare-Medicaid Automated Certification System
NCCNHR	National Citizens' Coalition for Nursing Home Reform
NCHS	National Center for Health Statistics
NNHS	National Nursing Home Survey
OTA	Office of Technology Assessment
PSRO	Professional Standards Review Organization
SNF	Skilled nursing facility
SSI	Supplemental Security Income
VA	Veterans Administration

CHAPTER 1

INTRODUCTION

No overall national policy addressing long-term care services for the elderly population exists. Medicaid has become the primary single payer for the most expensive of these services, nursing home care. Medicare and private insurance support only a negligible proportion of nursing home services, and the catastrophic costs of long-term institutional care often exceed elderly persons' financial resources. Expenditures for nursing home care represent the largest single expenditure category in the Medicaid program. As a result, the Federal Government and the States, through the operation of the Medicaid program, share the responsibility of insuring that adequate nursing home care is available to people who need it and that the services Medicaid pays for are provided efficiently.

Our examination of State Medicaid nursing home programs, combined with a review of current patterns and trends in the use of and need for nursing home care, indicates problems in the way this service is provided. This review raises questions about whether State Medicaid nursing home programs have an incentive to use the health care system efficiently, if all persons needing Medicaid nursing home services have access to them, and if sufficient information will be available to plan for the future long-term care needs of the elderly population effectively.

NURSING HOME CARE IS AN ESSENTIAL AND COSTLY COMPONENT OF LONG-TERM CARE

Long-term care is defined as

"one or more services provided on a sustained basis to enable individuals whose functional capacities are chronically impaired to be maintained at their maximum levels of psychological, physical, and social well-being. The recipients of services can reside anywhere along a continuum from their own homes to any type of institutional facility." 1/*

Many individuals, particularly elderly persons, will have to seek long-term care services in a nursing home. Recent demonstration projects designed to encourage use of alternatives to nursing home care have found that, even when disabled elderly persons are offered a wide array of community-based services, some proportion still needs to enter a nursing home. 2/ The number of elderly persons is growing and is expected to lead to a rapid growth in demand for nursing home care, attributed by one study to three basic

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*Notes to this chapter are at the end of the chapter.

demographic factors: "increasing life expectancy for the elderly, the dominance of chronic disease as the major cause of morbidity in the United States, and the 'shrinking' American family." 3/

In addition to the expected growth in demand, nursing home care is of national concern because of its increasing costs. Significantly, less than 50 years ago, the nursing home industry was virtually nonexistent, and as late as 1960, only $500 million was spent nationwide on these services. In 1960, expenditures for nursing home care from all sources constituted only 2.1 percent of total personal health care expenditures. By 1981, this proportion had more than quadrupled, increasing to 9.5 percent (or $24.2 billion) of the estimated $255 billion spent for personal health care. 4/ This increasing share of health resources indicates the growing importance of nursing home services in comparison to other health services.

Using data available from the Department of Health and Human Services (HHS), we found that total nursing home expenditures from all payment sources grew 16.0 percent annually from 1976 through 1980. 5/ Three analyses of the factors contributing to this growth rate have identified inflation as explaining the largest part of the increase over 3 different periods of time (with estimates ranging from 49 to 58 percent). Increased use because of a growth in nursing home days per capita or a growth in the size of the population has been estimated as explaining 15 to 37 percent of the growth in expenditures. The remaining increase, estimated at 13 to 27 percent, has been attributed to a growth in the real expenses per day (e.g., more staffing per bed, more amenities, and more profit). 6/

MEDICAID IS THE MAJOR PAYER FOR NURSING HOME CARE

As shown in figure 1, the Medicaid program paid for approximately 45 percent of all nursing home care in 1979 while Medicare --the major Federal health insurance program covering almost all elderly and some disabled individuals--paid for 2 percent.* Other government payers and the Veterans Administration (VA) paid the remaining 6 percent of public expenditures. Private resources financed less than one half (47 percent) of all nursing home care; only 1.4 percent of this amount was paid by insurance or other payers. 7/ The proportion of public and private spending has remained relatively stable since 1975.

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*This percentage does not include patients' contributions to the cost of their care. (See page 4.) The Medicare program was established under title XVIII of the Social Security Act on July 30, 1965, and went into effect on July 1, 1966. It provides health services to nearly all persons age 65 and older. Medicaid was authorized by title XIX of the Social Security Act and initiated on January 1, 1966.

2

Figure 1

Percentage Distribution of Nursing Home Expenditures in the Nation, FY 1975 and 1979 (Rounded)

1975

PUBLIC 54.9

Medicaid
46.6

Insurance and other 1.4

Out-of-pocket
43.6

PRIVATE 45.1

Other 3.6
Medicare 3.0
Veterans Administation 1.8

1979

PUBLIC 53.2

Medicaid
45.3

Insurance and other 1.4

Out-of-pocket
45.4

PRIVATE 46.8

Other 3.8
Medicare 2.3
Veterans Administration 1.9
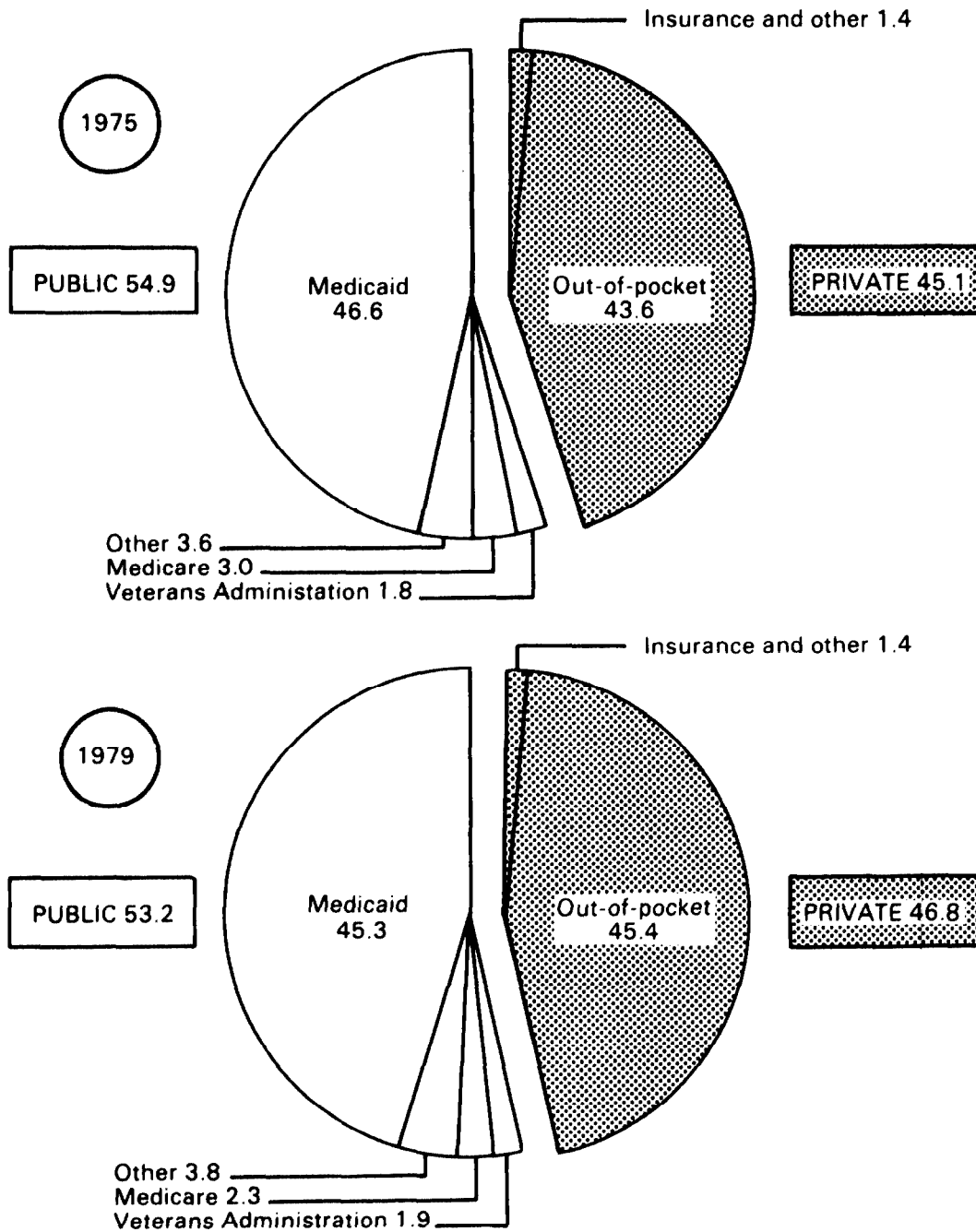
SOURCE: HCFA, Long-Term Care: Background and Future Directions (Washington, D.C. January 1981), p. 15, and unpublished HCFA data.

3

Medicare's coverage of nursing home care is limited to short-term care for patients who require daily delivery of skilled nursing or rehabilitative procedures. 8/ This coverage is applicable to acute rather than to chronic types of illness. The maximum number of covered days is 100 and the average length of stay under Medicare has been about 28 days. Nationally, only 1 percent of all Medicare expenditures is spent on nursing home care. In 1979, Medicare expenditures for skilled nursing home services totaled about $370 million. 9/ The Veterans Administration also provides nursing home care but only to veterans. In 1979, the VA operated 92 nursing homes in 45 States and served approximately 12,000 patients at a cost of $180 million. The VA also contracts with private nursing homes and in 1979 spent about $100 million to serve more than 28,000 patients. 10/ As shown in figure 1, the VA covered less than 2 percent of all nursing home care in 1979.

The private insurance industry provides limited nursing home coverage, perhaps because the need is predominantly for elderly persons and most medical care policies are directed to individuals of working age. In addition, if policies for elderly persons covered nursing homes, the premiums could be very high. As a result, most private insurance available today covers only Medicare co-payments; it paid for only 1 percent of all nursing home expenditures in 1980. 11/

Because of the limited coverage under these programs, Medicaid has become the predominant payer of nursing home care nationally. Data for 1977, the most recent national data available, indicate that 1.3 million individuals are in nursing homes and that Medicaid supports in whole or in part between 48 and 75 percent of these residents. In our earlier work using the 1976 Survey of Institutionalized Persons data, we found that 54 percent of elderly nursing home residents were receiving Medicaid support toward the cost of their care.* This percentage is higher than the proportion of total expenditures paid by Medicaid because persons supported by this program are required to contribute most of their income to the cost of their care. These resources are reported as private expenditures.

Nursing home services also represent the largest single Medicaid expenditure. As shown on table 1, these services accounted for approximately one third of all Medicaid dollars between fiscal years 1976 and 1980. However, expenditures increased over $3 billion during this time, a 14.5 percent average annual rate of

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*Data that we collected on patient days (available from 16 States) indicate that the proportion of total patient days that were paid by Medicaid ranged from 57 to 82 percent. The 54 percent estimate from our earlier work may be low because the survey data on which it was based included facilities ineligible for Medicaid participation.

Table 1

Nursing Home Services Paid by Medicaid FY 1976-80:
Expenditures (in Billions), Percentage of Expenditures,
and Average Annual Growth Rates a/

	1976	1977	1978	1979	1980
Expenditure	$4.7	$5.3	$6.2	$7.2	$7.9
% of Medicaid	33.3	33.0	34.6	35.0	34.2

13.4% Total Medicaid	14.5% Nursing homes	12.8% Non-nursing homes
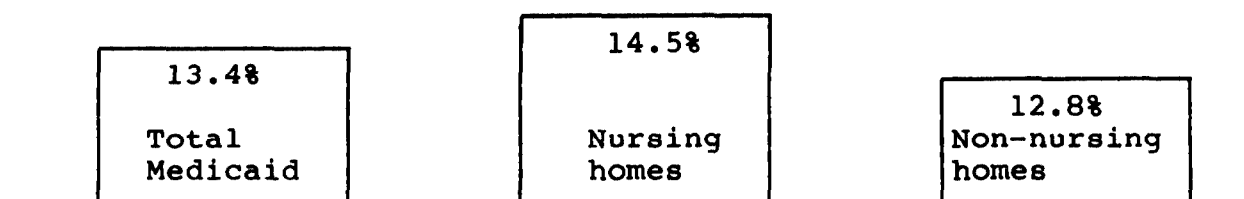
Average annual growth rate in program expenditures

SOURCE: HCFA, Medicaid State Tables (Washington, D.C.: 1976),
and unpublished HCFA tables for 1977-80.

a/Excludes Guam, the Northern Mariana Islands, Puerto Rico, and
the Virgin Islands. Nursing home expenditures include interme-
diate care facilities for the mentally retarded (ICF-MR) in the
following States in the years indicated: Ala., Ark., Calif.
(1976-79); Conn., Fla. (1976); Hawaii (1977-79); Ill., Maine,
Md. (1976-80); Mo. (1976); Nev. (1976-77); N.H. (1976-78); N.J.
(1977); Wash. (1976); W.Va. (1979). Program growth rates are
calculated on the basis of including ICF-MR expenditures within
nursing home expenditures for Ala., Ark., Calif., Conn., Fla.,
Ill., Maine, Md., Mo., Nev., N.H., and Wash. in 1976 and 1980.

increase. This rate of growth was faster than the 12.8 percent
growth rate for Medicaid's non-nursing home expenditures.

RECEIVING NURSING HOME BENEFITS
UNDER MEDICAID VARIES BY STATE

Medicaid assists individuals in paying for nursing home care
in several ways. For some elderly persons, entering a nursing
home means depending on Medicaid because the cost of care exceeds
their personal resources. Other elderly persons with economic re-
sources above the Medicaid eligibility limits enter nursing homes
at their own expense, but the cumulative cost of staying in a nurs-
ing home over a period of time depletes their personal resources.
They may then become eligible for Medicaid.

How an individual qualifies for Medicaid assistance, however,
depends on the State in which he or she lives. Medicaid is a

federally supported and State administered assistance program in
which the Federal Government currently pays from 50 to 78 percent
of State costs for providing medical care to eligible low-income
individuals and families. It is a program characterized by State
diversity and independence in determining eligibility, services
provided, and reimbursement levels. All State programs, however,
offer the mandatory, skilled nursing facility (SNF) and the op-
tional intermediate care facility (ICF) levels of nursing home
care.*

     The eligibility provisions for the Medicaid program are
complex and vary across the States. At a minimum, States must
provide Medicaid benefits to all persons eligible for cash payments
under the Aid to Families with Dependent Children (AFDC) program or
the Supplemental Security Income (SSI) program (which had a monthly
payment level of $284.30 for each individual as of May 1983). A
State has the option, under section 209(b) of the Social Security
Act, to limit Medicaid coverage to SSI recipients who meet more
restrictive Medicaid eligibility requirements. These requirements
cannot be more restrictive than those in force on January 1, 1972,
before the enactment of SSI. 12/ Persons eligible for Medicaid
benefits under these provisions are referred to as "categorically
needy." In December 1980, 16 States covered SSI recipients under
the section 209(b) option.

     In addition, States may provide Medicaid coverage to medically
needy individuals—those who cannot afford necessary medical serv-
ices and who are ineligible for assistance as categorically needy
because their income is above the program cut-off level. The
States set the income eligibility levels for medically needy
individuals, but these levels may not exceed 133.3 percent of

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*These services are defined as follows. An SNF is "an institution
  (or distinct part of an institution) that provides skilled nurs-
  ing care and related services to patients who require medical or
  nursing care. It may also provide rehabilitation services to in-
  jured, disabled, or sick persons. An SNF must provide 24 hour
  nursing services and employ at least one full-time registered
  nurse." (HHS, HCFA, Study of Skilled Nursing Facilities Mandated
  by Section 919 of Public Law 96-499 (Washington, D.C.: July
  1982), p. 4. An ICF is "an institution licensed under State law
  to provide, on a regular basis, health related care and services
  to individuals who do not require the degree of care and treatment
  which a hospital or skilled nursing home is designed to provide,
  but who because of their mental or physical condition require care
  and services (above the level of room and board) which can be made
  available to them only through institutional services." (B. D.
  Dunlop, The Growth of Nursing Home Care (Lexington, Mass.: Lex-
  ington Books, 1979), p. 118.) Intermediate care facilities for
  the mentally retarded (ICF-MR) are not addressed in this report.
  ICF-MR care is similar to ICF care except that it is provided to
  persons who are mentally retarded or have conditions related to
  mental retardation. (42 U.S.C. sec. 1396d)

the State's AFDC money payment. The people in a State who are defined as medically needy may have all or part of their expenses paid for under Medicaid; however, if their income and resources are above a State-prescribed level, they must first incur a certain amount of medical expense, which lowers their income to the medically needy level. This is often referred to as the "spend-down requirement." 13/

Twenty-nine States and the District of Columbia cover the medically needy as well as the categorically needy. Aged, blind, and disabled individuals in States that cover SSI recipients under the 209(b) option may also become eligible for Medicaid assistance under a spend-down provision. Eligibility in these States is based on income less the SSI payment, any optional State supplemental payment, and any incurred medical expenses.

Finally, individuals in 15 States that do not have a medically needy program or do not provide a spend-down provision under section 209(b) may still be eligible for Medicaid assistance when they are actually in a nursing home, if their incomes are less than 300 percent of the SSI standard payment; this is known as the Medicaid "cap." In these States, if an individual's resources increase while in a nursing home, thereby exceeding the set dollar eligibility level, he or she would lose Medicaid coverage. 14/

STATE EFFORTS TO LIMIT MEDICAID SPENDING

Currently States are trying to reduce the rate of increase in their Medicaid expenditures for nursing home care as well as non-nursing home services because of two related factors: (1) the reduction in the Federal contribution to Medicaid as passed in the 1981 Omnibus Budget Reconciliation Act and (2) fiscal pressure on State budgets from inflation, the recession, and reduced revenues from cutbacks in other Federal aid and State tax limitations.

The Omnibus Budget Reconciliation Act of 1981 (Public Law 97-35, section 2161) specifies that the Federal Medicaid contribution will be reduced by 3, 4, and 4.5 percent in fiscal years 1982, 1983, and 1984, respectively. States may offset these reductions by meeting certain requirements specified in the legislation or by keeping the increase in Medicaid expenditures within a specified percentage. 15/

According to a survey on State Medicaid changes, more than 30 States reduced or limited benefits, eligibility, or provider reimbursement in 1982. 16/ In a recent survey by the National Governors' Association, 26 of the responding 29 States cited the control of health care costs as their top fiscal priority. 17/ As one official for this organization stated,

> "There are decreasing public sector resources at the same time there is increasing need [for health care services] because of the economic downturn. Healthcare costs are continuing to escalate despite the downturn in general." 18/

7

A survey by the National Conference of State Legislatures found that 31 States expected to end fiscal year 1983 with a deficit or with a surplus of no more than 1 percent of their annual spending. 19/ (A 5 percent surplus is considered a comfortable margin.) Twenty of these States anticipated a budget deficit which would require that taxes be raised to increase revenues or that spending be reduced to achieve a balanced budget or both. The survey findings indicated that more States will increase one of their major taxes in fiscal year 1983 than in any one of the last 7 years. 20/

Because of these budgetary problems, States are trying to limit their Medicaid spending, and nursing home care is a primary target because this service is the largest component of the program. To contain costs, States are using nursing home bed supply or reimbursement policies or both to slow the growth in their Medicaid programs. To reduce their nursing home expenditures, some States, under a recent HHS reinterpretation of the Medicaid law, are also attempting to implement policies and corresponding legislation that would require responsibility on the part of a patient's relatives for reimbursement of an individual's Medicaid assistance. These actions appear to represent a significant change in policy because Medicaid legislation has, before now, been interpreted as precluding States from seeking such reimbursement. 21/

OBJECTIVES, SCOPE, AND METHODOLOGY

As the role of Medicaid in the financing of nursing home care for the elderly has expanded, gaps in understanding how the program works from a national perspective--what services are actually provided and with what frequency, quality, and efficiency--have become increasingly serious. What the effect will be of the States' efforts to reduce their support of nursing home care is also of concern.

The Chairman of the Subcommittee on Health and the Environment of the House Committee on Energy and Commerce asked us to assess the current role of Medicaid in nursing home care across the States.* Specifically, he asked us to examine the characteristics of the population served in nursing homes, including patterns of length of stay; the characteristics of new admissions; and the variability of State program expenditures, bed supply, and reimbursement. The objective of this report is to provide information on these aspects of the program.

To conduct this study, we made an extensive review of the literature and interviewed knowledgeable individuals in Federal and State Governments, universities, research organizations, organizations representing individuals most likely to use nursing home care, and the nursing home industry. In addition, we analyzed

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*See appendix I for a copy of the requesting letter.

data obtained from HHS and two surveys, as described below. Data limitations and problems are noted where appropriate and in the appendixes. This review was performed in accordance with generally accepted government audit standards.

Our State survey

We collected original data for the period 1976-80 through a telephone and mail survey of Medicaid officials in 49 States and the District of Columbia. Because Arizona did not participate in Medicaid at the time, we excluded it from our analysis.* We contacted three types of Medicaid officials in each State. These persons were responsible for one of three areas in each State's Medicaid program: (1) designing the nursing home reimbursement methods, (2) collecting data on nursing home beds, and (3) reimbursing hospitals for Medicaid patients waiting in hospitals for nursing home beds. In addition, we contacted officials in State health departments in some cases for data on nursing home beds. In all, we interviewed between two and five persons in each State.

Our initial contact was by telephone. Using a structured interview, we collected both quantitative and qualitative data. The following types of information were collected:

--number of licensed nursing home beds for each year,

--Medicaid reimbursement rates for each year,

--number of Medicaid patient days for each year,

--a description of the State reimbursement plan based on factors identified in a prior review of each State's reimbursement methods on file at HCFA,

--a description of preadmission screening programs and other special demonstration projects allowed under a waiver of Medicaid provisions,

--a description of the policy for payment of Medicaid-eligible patients waiting in hospitals for nursing home placement, and

--a description of litigation involving Medicaid nursing home care.

We summarized, recorded, and mailed back this information to each person in the States and the District of Columbia who initially provided it so that the accuracy and completeness of the

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*The Medicaid programs in Guam, Puerto Rico, the Virgin Islands, and the Northern Mariana Islands were also excluded.

data could be verified. One package of data was mailed to each of the three types of officials surveyed in each State. In some cases, we included neighboring State data in the package to provide more information to State officials for checking the accuracy of the data they provided. The response rate for the return of all the packages to us was 100 percent. Updates and corrections were made to several sets of the data. Then we prepared this information for computer files and used it for much of the analysis in this report.

Minnesota Medicaid nursing home data

Data on Medicaid patients collected by the Quality Assurance and Review Program in the Division of Health Systems in the Minnesota Department of Health were provided to us by State officials and were used to amplify our examination of the characteristics of Medicaid nursing home residents. This data base gave us an opportunity to examine the same patients over time. Federally required annual Medicaid data were linked through a patient identifier number and prepared for analysis by researchers at the Hubert Humphrey Institute of Public Affairs at the University of Minnesota.

The data base contained information on almost all Medicaid nursing home patients in the State between 1976 and 1979. It permitted an analysis of (1) the characteristics of the total Medicaid population each year and changes in the characteristics of individuals who remained in a nursing home over the 4-year period and (2) the differences in the profiles of persons first entering a nursing home in each of the 4 years. We were also able to estimate the number of persons who entered as "private pay" patients, depleted their resources, and became eligible for Medicaid. Detailed information on this survey is noted, where appropriate, in the next chapter and in appendix II.

Analysis of HHS expenditure data

In order to analyze the variation in State Medicaid nursing home spending, we relied on annual State Medicaid data collected by the Bureau of Data Management and Strategy in HCFA in HHS. We examined expenditure data for SNF and ICF care for fiscal years 1976-80 in a number of different ways and this analysis provided the basis for one chapter in the report. The 1980 HHS expenditure data for nursing home services by State represent the most recent data released by HHS as of Spring 1983.

REPORT ORGANIZATION

The next chapter, chapter 2, discusses the characteristics and future trends of the population most likely to use nursing home care. The following issues are examined:

--Who needs nursing home care?

--What factors predict nursing home use?

--What is known about the characteristics of the nursing home
   population over time?

--What is the size of the population likely to use nursing
   home care and is this population growing?

--What are the implications of these characteristics and
   trends for the use of and expenditures for Medicaid's
   nursing home program?

   Chapter 3 examines the variation in State spending for nursing
home care. The following issues are included:

--To what extent does Medicaid spending for nursing home
   care vary across the States?

--To what extent is the variation in State expenditures
   related to variation in State fiscal resources?

--To what extent does the Federal Medicaid contribution
   change the variation in State expenditures?

   Chapter 4 examines one factor underlying State spending vari-
ation--the supply of nursing home beds. The relationships between
nursing home bed availability and State population characteristics
and spending variation are also reviewed. The following issues are
examined:

--How many nursing home beds are there in the United States?

--How does the supply of nursing home beds relate to the needs
   of a State's population?

--How does variation in bed supply affect access to nursing
   home care for elderly persons who are considered to be very
   dependent?

--How is bed supply related to Medicaid nursing home expend-
   itures?

--What actions are States taking to limit nursing home bed
   supply?

   Chapter 5 reviews another factor underlying State spending
variation--reimbursement policy. The incentives of different nurs-
ing home reimbursement methods and the diversity of State payment
systems and rates are presented. The following issues are
examined:

--How do the methods and rates of payment vary across the
   States?

--How do Medicaid reimbursement systems influence cost
   containment, quality, and access?

--How are States using reimbursement policies to limit
    their Medicaid spending?

Finally, in chapter 6, one outcome of State Medicaid reim-
bursement and bed supply nursing home policies is discussed. The
following issues concerning access to nursing home care for certain
types of patients are examined:

--What are the types of access problems for Medicaid patients
    attempting to gain admission to nursing homes?

--To what extent is there an access problem for patients
    waitinc in hospitals for nursing home beds (hospital
    backup)?

--What are the causes of hospital backup and who is the pri-
    mary pŕ·'er (Medicaid or Medicare) for hospital backup
    patients?

--How do recent changes in Medicare hospital reimbursement
    relate to the hospital backup problems of Medicaid pa-
    tients?

Chapter 7, the last chapter, presents concluding observations
on the coverage of nursing home care under the Medicaid program.
In addition, limitations of available Medicaid and nursing home
data and research are discussed.

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12/SSI was established by the 1972 Amendments to the Social Security Act and implemented in 1974. Before SSI, States had the authority to set cash assistance and Medicaid eligibility standards for the aged, blind, and disabled. Since 1974, the Federal SSI program has established minimum income standards for these individuals and States have been permitted to choose one of three ways to determine Medicaid eligibility for these persons. The Medicaid program can cover (1) all persons receiving an SSI benefit, (2) all persons receiving an SSI benefit or State supplementary benefit, or (3) all persons who met the eligibility criteria for medical assistance which were in effect on January 1, 1972, or some less restrictive criteria (which had to be more restrictive than the criteria for SSI benefits or State supplements and had to be applied to the individual's income after subtracting the SSI benefit, any State supplementary benefit, and any incurred medical expenses). States following the third option are known as "section 209(b)" States. (HHS, HCFA, "The Medicare and Medicaid Data Book, 1981," p. 71.)

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CHAPTER 2

CHARACTERISTICS AND TRENDS OF THE POPULATION

MOST LIKELY TO USE NURSING HOME CARE

An important question in examining the role of Medicaid in providing nursing home care is determining the population most in need of this service. Unfortunately, an initial problem in this assessment is the difficulty in defining who should be served by Medicaid's nursing home program. The authorizing legislation for the Medicaid program does not specify who is to be served; it identifies basic income eligibility criteria and leaves it to the States to provide program services "as far as practicable under the conditions" in each State. 1/ Within these limits, each State defines whom it will cover by its eligibility criteria. This chapter describes the characteristics of the users and likely users of nursing home care.

The use of nursing homes is a function of demand, even though all people who may need nursing home services do not receive them and even though all people who use the services do not need them. The first set of issues reviewed, therefore, is the relationship between the need and demand for nursing home care and the effects of supply on the use and users of nursing home services. Next, the chapter identifies the distinguishing characteristics of the nursing home population, the lengths of stay of nursing home residents, and trends in resident care needs. Finally, the chapter examines demographic trends and the implications these trends may have for future nursing home use.

THE RELATIONSHIP OF NEED, DEMAND,
AND SUPPLY TO NURSING HOME USE

Each State has some degree of flexibility in determining who receives Medicaid nursing home care. This makes it difficult to set any general or common standards of need or to determine precisely whether "appropriate" persons are receiving needed care under the Medicaid nursing home program. Issues involved in defining who needs, demands, and uses nursing homes are discussed below.

Need for nursing home care

Defining a medical need for nursing home care is quite complex; in addition, the degree of this need is not the only determinant of nursing home use but is frequently intertwined with the elderly's housing, income, and social support conditions. 2/ A person's inability to perform basic activities of daily living appears to be a more important determinant of nursing home need than medical diagnosis. Personal care dependencies, such as needing assistance in bathing and dressing, may arise from an acute medical condition or from a chronic condition coupled with a factor such as advanced age. A need for nursing home care may also arise in ways

other than a personal care dependency; persons with certain mental disorders, for example, may need supervision to insure that they harm neither themselves nor others.

Housing, income, and social support conditions affect nursing home need because long-term care assistance can often be provided in a variety of settings that include an individual's own home, board and care facilities, and nursing homes. Obtaining care in the home may be the appropriate choice if families can provide the needed assistance within their financial and care giving capacity. The availability of less-intensive services also might reduce the need for nursing home care. Services such as home health care, respite care, adult day health care, and personal care homes may meet an elderly person's need. However, if such services are not available, some persons will need nursing home care because they cannot function independently at home. Even when services are available, many individuals will require such extensive support that they will seek care in a nursing home. For example, our recent study of home health care demonstration projects found that even when individuals were offered a wide array of community-based services as an alternative to nursing home care, the use of nursing home care did not decline. 3/

Estimating the number of persons who might need nursing home care, therefore, involves a complex definition of need and extensive information regarding the service requirements of individuals, the availability of alternative means of providing these services, and the decision processes by which individuals select a course of action. Definitions, models, and data to make these estimates are not currently available.

Demand for nursing home care

Demand for nursing home care involves an individual or family decision to seek admission to a nursing home. Such decisions are determined only partly by the need for nursing home care. Individuals who need such care by the objective criteria outlined above may not seek admission to a nursing home; likewise, some who do not fulfill the need criteria may seek admission. For example, a demand for nursing home care may depend on the actual availability of informal support. The source of such support--a spouse, a child, another relative, or a friend--may be a major factor in actual availability and reliability of the care required. Spouses may provide care far beyond what might be expected, whereas other care givers may be more reluctant or unable to supply this extensive support. 4/

Economic factors, such as income and the price of nursing home care, may also affect demand. Higher income may allow some persons to avoid entering nursing homes because they can afford to purchase in-home services. For others, a high income may be the key to entering a nursing home because an individual is able to pay the rates nursing homes charge to private patients.

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For those who are eligible for Medicaid, the demand for nursing home care is affected by Medicaid's bias toward institutional care in providing long-term care services. As reported by our earlier work, some Medicaid-eligible elderly persons who are chronically ill and disabled do not require institutional long-term care. However, because Medicaid's coverage of noninstitutional long-term care services has been limited, some persons with the potential to remain in the community had to turn to nursing home care instead. 5/ The Medicaid home and community care waiver, passed in the Omnibus Budget Reconciliation Act of 1981, is intended to remove some of Medicaid's bias toward providing institutional long-term care services and reducing the number of avoidable placements in nursing homes by enabling States to experiment with alternative forms of long-term care.

The relationship of supply to the need and demand for nursing home care

Nursing home occupancy rates have historically been very high (estimated at 92.4 percent in 1980), creating difficulties for some individuals in gaining access to care. 6/ In addition, a report by an HHS Task Force on Long-Term Care stated that the problem of finding a bed for certain Medicaid eligibles is often "severe." 7/

A tight bed supply does not merely indicate potential access problems; it also complicates the identification of "appropriate" use from a need point of view because it enables nursing homes to be more selective about who is admitted. This means that private patients who pay the full price nursing homes charge are likely to receive first preference, whatever their degree of need; Medicaid patients fill whatever beds remain after private demand is satisfied. And, because most States' reimbursement systems pay reimbursement rates unrelated to individual patients' care needs, Medicaid patients requiring fewer services--and, therefore, representing lower costs--are preferred over "heavy care" patients. 8/

Using current resident characteristics to estimate the potential nursing home population

In summary, the difficulties in identifying the target population for Medicaid nursing home care include

--lack of an agreed-upon definition of need (i.e., the "medical" need for nursing home care as well as the housing, income, and social support conditions affecting this need);

--differences in the availability of noninstitutional long-term care services which may defer or offset an individual's need for nursing home care;

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--lack of appropriate models and data to estimate the population in need of care;

--lack of understanding about the decision processes used in seeking nursing home care, particularly the effect of economic factors on these decisions;

--the bias in Medicaid's coverage toward institutional rather than noninstitutional care, possibly resulting in avoidable nursing home use; and

--high nursing home occupancy rates, enabling nursing homes to be selective in admitting applicants and particularly making it possible for them to prefer private patients and "lighter care" Medicaid patients.

Because no agreed-upon criteria for measuring need for nursing home care are available, estimates must generally rely on the characteristics of current users of nursing homes, although this population cannot be defined as "appropriate." Nursing home use may be as much a function of demand, private means, and restrictions on supply as it is a function of need. Therefore, despite the fact that these estimates represent the most reliable data currently available on nursing home populations, they reflect use rather than need. This bias means that both those currently served and those currently unserved are in need of nursing home services in unknown proportions.

THE POPULATION MOST LIKELY
TO USE NURSING HOMES

Most studies examining characteristics associated with nursing home use have been limited to particular geographic locations. While less than national in scope, these studies have been important in identifying major factors which appear to lead to an individual's institutionalization. One national study, performed by researchers from the Urban Institute, did examine several factors related to nursing home use among essentially the entire elderly population. The findings from this study, and supporting evidence from other research examining the likelihood of nursing home use, are presented below.*

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*The findings from this national study and the supporting evidence in the other research are described in greater detail in the following two papers: W. Weissert and W. Scanlon, Determinants of Institutionalization of the Aged (Washington, D.C.: Urban Institute, November 1982), and W. Weissert, W. Scanlon, and A. Unger, Estimating the Long-Term Care Population: National and State Prevalence Rates and Selected Characteristics (Washington, D.C.: Urban Institute, December 1981).

Description of procedures for examining institutionalization characteristics

Most studies attempting to identify characteristics associated with nursing home use examine differences between institutionalized and noninstitutionalized populations. The study described here, the most comprehensive analysis of the national population available at the present time, combined data from the 1977 Health Interview Survey (HIS) and the 1977 National Nursing Home Survey (NNHS). The HIS is an annual survey designed to obtain information on the incidence and prevalence of health problems and on the use of health services among the noninstitutionalized civilian population, while the NNHS is conducted periodically for a nationwide sample of nursing homes and their residents, discharges, and staff. Merging the two data sets involved constructing a single set of comparable variables from survey items included in both samples.

The data used to examine characteristics of the institutionalized population included demographic variables such as age, sex, race, and marital status; measures of need for assistance in such activities as eating, toileting, dressing, bathing, and mobility; and additional variables covering climate, poverty status, diagnosed condition, and support available to the person. These data were analyzed statistically to estimate the probability of nursing home residence associated with these variables. Most of these variables have been identified in other research as factors associated with the risk of institutionalization.*

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*For several of the variables, reliability problems should be considered in assessing the results. Data on the measures of help, diagnosed condition, poverty status, and available support all involved some difficulties in the underlying data or required certain assumptions in order to conduct the analyses. The primary difficulty with the HIS data is that the data are self-reported; this was considered as possibly being problematic, especially for mental disorders. For the NNHS, data on patient conditions were taken from patient records, which may vary considerably from one nursing home to another. Social support data on the HIS were relatively limited, focusing primarily on whether a person was living alone and whether needed help was received. In the NNHS it was not possible to collect data on social support for institutionalized residents; data were imputed from a proxy measure using the proportion of the community that was elderly. This measure was not considered to be an adequate indication of a nursing home patient's informal support network before admission. Poverty status on the HIS was constructed on the basis of Bureau of the Census definitions for the particular geographic location of the respondent. For the NNHS, poverty status was based on whether the charges for care were paid by Medicaid, general welfare, or a charitable organization. Although this information was not considered to be precise, because patients could still have income

Characteristics which predict
nursing home use

Data from the 1977 HIS and NNHS files show a series of
characteristics of the elderly population which are clearly associ-
ated with the probability of an elderly person being in a nursing
home. Table 2 illustrates institutionalization rates for elderly
persons with combinations of characteristics which are associated
with high probabilities of institutionalization.

The most important predictor of institutionalization iden-
tified in the combined HIS and NNHS data was dependency in the
routine activities of daily living, particularly in the personal
care functions of eating, toileting, bathing, and dressing. As
shown in table 2, persons with these dependencies were considerably
more likely to be in nursing homes. A number of studies have sub-
stantiated the fundamental importance of dependency in personal
care as a factor in the institutionalization of the elderly. A
study using national data on aged welfare recipients, as well as
community or regional research conducted in Florida, Minneapolis-
St. Paul, Massachusetts, Georgia, and Ontario found that dependency
in personal care was a statistically significant determinant of
institutionalization. 9/

Mental illness and diagnoses of injury, cancer, or digestive,
blood, metabolic, genitourinary, and circulatory disorders were
also found to be significant predictors of nursing home use. Of
these diagnoses, mental illness was the most significant.* 10/ The
data show that mental and physical illness clearly increased the
probability of the elderly's use of nursing homes: close to 66
percent of persons 65 or older identified as mentally ill and over
20 percent of those with injuries, cancer, or digestive, metabolic,
blood, genitourinary, or circulatory disorders were in nursing
homes, according to the combined 1977 HIS and NNHS files. 11/

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above the poverty level, it was considered usable, because such
patients were still viewed as being at the lower end of the income
distribution range.

*Mental illness was defined in the NNHS as a primary diagnosis of
mental disorder and senility without psychosis, which was broken
down into the following categories: senile psychosis, other
psychosis, chronic brain syndrome, senility without psychosis,
chronic alcoholism, or other mental disorder. Mental illness was
defined in the HIS using any self-reported data on the cause of
any dependency. Conditions were coded according to those set
out in the International Classification of Diseases (ICD) (8th
revision). In an analysis of the merged HIS and NNHS data, the
NNHS categories were reclassified into ICD classifications. If
there was a tendency for community residents to underreport mental
illness, this estimate could be high. (W. Weissert and W. Scan-
lon, p. 12.)

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Table 2

Percentage of Elderly Persons Institutionalized with High-Risk Characteristics by Age

	65-74	75+	Total
All elderly			
Married	0.4	2.9	1.1
Unmarried	3.2	14.5	8.9
Total	1.5	10.2	4.8
One or more high-risk diagnoses a/			
Married	1.3	7.3	3.2
Unmarried	9.5	32.1	22.8
Total	4.4	23.6	13.0
Poverty			
Married	2.3	7.7	4.3
Unmarried	8.5	28.3	19.5
Total	6.0	23.3	14.6
Bathing/dressing dependent			
Married	6.3	16.4	11.9
Unmarried	46.2	48.7	48.2
Total	27.3	41.7	37.8
Toileting/eating dependent			
Married	23.4	39.2	32.6
Unmarried	53.9	77.0	73.8
Total	40.0	69.2	62.0
Unmarried, high-risk diagnoses, in poverty			
Dependent in:			
Bathing/dressing	73.4	72.7	72.9
Toileting/eating	88.4	91.4	91.0
Total	77.4	83.5	83.0

SOURCE: W. Weissert and W. Scanlon, Determinants of Institutionalization of the Aged (Washington, D.C.: Urban Institute, November 1982), p. 13.

a/Includes mental disorders; injuries; cancer; and digestive, metabolic, blood, genitourinary, circulatory, and skeletal disorders.

Some earlier studies did not use specific medical conditions of elderly persons, or else they combined illness and disability with dependency problems. Therefore, these studies did not examine the independent effect of a person's diagnosis as leading to nursing home use.* However, the recent longitudinal statewide

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*For example, a longitudinal study conducted in California examined the "health status" categories of functional disabilities, chronic conditions, and symptoms in predicting long-term nursing home stays; health and disability items were also combined in

Massachusetts study mentioned above did include several mental and physical disabilities and identified two (mental disorientation and use of ambulation aids) as significant factors predicting nursing home use, as distinct from dependency in activities of daily living. 12/ A community study conducted in Florida also found that impairment in mental health was a particularly strong factor in nursing home placement. 13/ The number of medical conditions and the ability of individuals to make decisions were also found to be determinants of long-term care placement, in a study conducted in Minneapolis-St. Paul. 14/

Data from the merged HIS and NNHS files indicate that age alone was also a significant predictor of institutionalization for the elderly population, even when all the characteristics associated with advanced age (e.g., impaired health, dependency, and greater likelihood of living alone) were considered. 15/ For example, 4 percent of elderly persons age 65 to 74 with a diagnosis of a condition posing a high risk of institutionalization were in fact institutionalized in 1977, while almost 24 percent of persons age 75 or older with the same diagnoses were institutionalized. Similarly, 40 percent of those 65 to 74 who were dependent in toileting or eating were institutionalized, compared to over 69 percent of those 75 or older. 16/

The Massachusetts study referred to above, which identified factors leading to nursing home admission for a random sample of Massachusetts elderly over a 6-year period, found that old age (age 80-99) and living alone were the only sociodemographic characteristics significantly related to nursing home entry. 17/ Five other sociodemographic variables (marital status, sex, Medicaid eligibility, education, and having relatives nearby) had no significant effect on nursing home use. In a 10-year longitudinal study of a random sample of elderly persons in Alameda county, California, almost 70 percent of those age 85 and older had at least one stay in a nursing home before death. 18/

In addition to age, dependency, and medical diagnosis, three other variables--marital status, poverty, and climate--were found to be significant determinants of institutionalization, in the statistical analysis of the merged HIS and NNHS files. Other studies also found that not having a spouse, living alone, or, more generally, not being able to draw upon the resources of an informal social support network are independently significant factors increasing the risk of institutionalization among elderly

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analysis of a national sample of aged welfare recipients using 1973 data. (L. Vicente, J. A. Wiley, and R. A. Carrington, "The Risk of Institutionalization Before Death," The Gerontologist, Vol. 19, No. 4, 1979, pp. 361-67; and J. L. McCoy and B. E. Edwards, "Contextual and Sociodemographic Antecedents of Institutionalization Among Aged Welfare Recipients," Medical Care, Vol. 19, No. 9, September 1981, pp. 907-21.)

persons. 19/ Other research findings on the importance of climate and poverty are, however, inconsistent.*

In summary, it appears that dependency in the personal care activities of daily living (eating, toileting, bathing, and dressing) is associated with the highest probability of institutionalization. Elderly persons with mental disorders are also quite likely to be institutionalized. Those with physical disorders are also more likely to be in a nursing home but less likely than those with a personal care dependency. Persons with dependencies or physical or mental disorders are even more likely to be in a nursing home when they were very old, unmarried, or without informal social support.

NATIONAL ESTIMATES OF THE POPULATION SERVED AND NOT SERVED IN NURSING HOMES

As pointed out earlier in the chapter, it is difficult to estimate the number of persons in need of nursing home care. However, using the information available on the characteristics of those who are institutionalized, it is possible to estimate how extensive nursing home use is among the total U.S. population with these characteristics.

Using the combined HIS and NNHS data described in the previous section, the Urban Institute study estimated that 2,880,000 civilian Americans suffered dependency in personal care in 1977; nearly 71 percent of these persons were 65 and older. Almost 40 percent (or an estimated 1,138,700 persons) of the total population dependent in personal care were in nursing homes. Of the estimated

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*Analysis for this report indicated that the purported effect of climate on nursing home use may be an artifact of the correlation of climate and a large percentage of older elderly (age 85 and older) in a State's population. These findings are discussed in chapter 4. The Massachusetts study considered Medicaid eligibility as a measure of poverty for a sample of elderly persons and found no increased or decreased likelihood of these persons' entering a nursing home over a 6-year period. (L. Branch and A. M. Jette, "A Prospective Study of Long-Term Care Institutionalization Among the Aged," American Journal of Public Health, Vol. 72, No. 12, December 1982, p. 1374.) Two other longitudinal studies, one covering 10 years and the other 20 years, measured the adequacy of an individual's income as a predictor of nursing home use. The first study concluded that poorer people were more likely to use institutions, while the other found that persons with inadequate incomes had a much lower rate of institutionalization. Neither study considered the supply of nursing home beds or whether poor persons had restricted access because of limited bed supply. (L. Vicente et al., pp. 361-67, and E. Palmore, "Total Chance of Institutionalization Among the Aged," The Gerontologist, Vol. 16, No. 6, 1976, pp. 504-07.)

1,303,100 persons in nursing homes in 1977, 86 percent were age 65 and older. Almost 5 percent of all elderly persons were in nursing homes in 1977, but rates of institutionalization for persons age 75 and older (10.2 percent) were about seven times higher than for those age 65-74 (1.5 percent). [20]/ Overall, those dependent in personal care (i.e., the estimated 2.9 million persons mentioned above) constituted 1.4 percent of the total population but 8.7 percent of those age 65 and older. Half the number of all persons dependent in toileting or eating (the most severe personal care dependencies) resided in nursing homes, while only about 2 percent of those dependent in mobility resided in nursing homes.* [21]/

The HIS file includes data on the source, nature, and perceived adequacy of health and personal care assistance available to the sampled noninstitutionalized population. Those who were dependent in personal care functions and mobility, and who indicated that they were receiving help less often than necessary, might be considered the group most likely to enter nursing homes if their occasional informal support were no longer available. In 1977, this dependent population was estimated as totalling approximately 166,000 persons of all ages.** If these people had all been admitted to nursing homes, the 1977 nursing home population would have been about 13 percent larger. [22]/ However, it should be noted again that HIS data are self-reported; this means that the 166,000 estimate may reflect either under- or overreporting to an unknown extent.

PROFILE OF ELDERLY NURSING HOME RESIDENTS

The characteristics used to predict entry into a nursing home show that the nursing home population is, in general, an aged, dependent population. Closer examination of this population also shows that many chronically ill or disabled persons who enter nursing homes stay there a long time. The NNHS found that on one day in 1977, 16 percent of the 1.3 million residents had been 5 years or more in the nursing home that was being surveyed; 14.8 percent, from 3 to 5 years; 32.8 percent, from 1 to 3 years. [23]/ The burden of paying for these long nursing home stays frequently falls on the Medicaid program.

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*Dependency in mobility was defined in the NNHS with the following variables: confined to a bed or chair; needs help in walking; uses a posey belt or similar device; needs assistance to leave the nursing home grounds; and admitted primarily because of mental illness, mental retardation, or disruptive behavior (all of which might limit a person's mobility). Dependency in mobility was defined from the HIS as needing help getting around inside or outside the house or neighborhood.

**It was not possible to estimate the size of the elderly population with these dependency characteristics.

Nursing home residents' length of stay

Recent analysis of national data collected in 1977 indicated that while the median length of stay for nursing home residents on the day of the survey was less than 3 months (79 days), a small proportion of residents stayed far longer, so that the average stay was calculated as being more than a year (456 days). This analysis also found that the expected remaining length of stay increased the longer a person had been in a nursing home. 24/

A second statistical model, which used 1973 and 1977 NNHS data, developed two profiles of nursing home patients, one with characteristics which typically led to long stays and the other with characteristics that typically led to short stays. This model estimated that patients likely to be long-stayers stayed an average of 2.5 years and those likely to be short-stayers stayed an average of 1.8 months. 25/ While the majority of people admitted to nursing homes are discharged after a short stay, it was estimated from the model that, on any given day (such as the day of the NNHS), long-stayers would constitute more than 91 percent of these nursing home residents. 26/

The long-stayers in the 1977 NNHS sample population were, in comparison to short-stayers, more likely to be

--women,

--unmarried,

--diagnosed as having mental illness or being senile rather than having other chronic conditions, and

--supported by Medicaid. 27/

Long stays often lead to Medicaid eligibility

Data on the proportion of the long-staying population that is supported by Medicaid are limited.* Our earlier work indicated that private patients who become eligible for Medicaid after exhausting their resources could represent a considerable proportion of current Medicaid patients. Although only 46 percent of residents with a length of stay of 6 months or less were supported at least in part by Medicaid, we found that up to 61 percent of residents with longer stays were supported by Medicaid. These estimates are based on data from the 1976 Survey of Institutionalized

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*The only available annual national data on Medicaid patients are the number of patients that Medicaid paid for at some point during the year. How long these patients stayed and whether they entered as private pay patients is unknown. (HHS, HCFA, Medicaid State Tables (Washington, D.C.: 1976), and unpublished HCFA tables for 1977-80.)

Persons and could be low because the survey included residents in facilities ineligible for Medicaid participation. In addition, a study conducted in South Dakota in 1976 found that 30 percent of Medicaid patients in nursing homes entered as private pay patients, and a study of a sample of Detroit area nursing homes found that two thirds of those who entered as private pay were Medicaid patients at the time of the study. 28/

Longitudinal data from the State of Minnesota for 1976-79 also allowed us to examine the issue of conversion to Medicaid. We defined a Medicaid patient as having converted if the year of admission to a nursing home was 2 years before the year of the first Medicaid record.* Considering only those who became Medicaid patients in 1977 or later (because it was unknown whether those present in 1976 had Medicaid records in prior years), we found that roughly 26 to 28 percent of those showing Medicaid records for the first time in 1977 or later had admission dates before their first Medicaid record. This suggests that more than one fourth of the patients given Medicaid coverage in nursing homes in Minnesota in 1977, 1978, and 1979 had actually entered nursing homes at some point earlier as private pay patients and subsequently converted to Medicaid. These data may under-report the total number of conversions because some individuals who entered facilities as private pay may have converted to Medicaid in less than a year but were considered Medicaid patients because they had no records in prior years.**

Indications that Medicaid is supporting
an increasingly dependent nursing home
population

As the discussion above suggests, Medicaid nursing home expenditures are directed to a large population of chronically ill, functionally dependent persons who stay in these facilities a long time. Furthermore, as described in chapter 1, it has been estimated that 13 to 27 percent of the increase in nursing home expenditures is an increase in real expenses, part of which could be arising from the necessity of providing more care for each nursing home resident. Composite measures of the amount of care nursing home residents require are not available at the national or State

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*See appendix II for a discussion of the analysis of the Minnesota Medicaid Quality Assurance and Review program data.

**Because of the importance of this information to the Federal and State Medicaid program and budgets, HCFA has proposed a supplement of the 1984 NNHS with a nationally representative sample of admissions over a 12-month period. This sample would be drawn retrospectively but would track each member of the sample prospectively for a period of 12 and possibly 24 months. The major objective of this addition to the national survey would be to determine the transitions in facility use and payment sources of an admission cohort of nursing home patients.

levels. According to the findings from the studies reported
earlier, one of the best indicators of care needs are dependen-
cies in activities of daily living because they appear to match
the services actually provided to nursing home residents.

Many indexes of dependency have been developed by various
researchers; one index, the Katz index of dependency, is reported
in the two NNHS's (in 1973-74 and 1977). This index classifies
individuals according to a hierarchy based on ability to perform
six specific activities of daily living with each of seven succes-
sive levels indicating greater dependency. The activities used in
this index are bathing, dressing, toileting, transferring, conti-
nence, and eating.

Table 3 shows the percentage of nursing home patients who
were dependent in each of these activities in 1973-74 and 1977 as

Table 3

Percentage Distribution of Nursing Home Patients in 1973-74 and 1977 Dependent in Activities of Daily Living

	1973-74	1977
Activity		
Bathing	70.7	86.3
Dressing	58.9	69.4
Toileting	52.7	52.5
Transferring	51.6	66.1
Continence	33.8	45.3
Eating	17.6	32.6
Katz index of dependency		
Not dependent	23.5	9.6
Dependent in one activity	12.7	12.4
Dependent in bathing and one other activity	8.4	12.2
Dependent in bathing, dressing, and one other activity	4.5	8.5
Dependent in bathing, dressing, toileting, and one other activity	14.3	9.6
Dependent in bathing, dressing, toileting, transferring, and one other activity	16.0	15.6
Dependent in all six activities	14.4	23.3
Other combinations of dependencies	6.2	8.9

SOURCE: HHS, National Center for Health Statistics, "Nursing
Home Costs--1972, United States: National Nursing Home
Survey, August 1973--April 1974," Vital and Health Sta-
tistics, Series 13, No. 38 (Hyattsville, Md.: November
1979), p. 60, for 1973-74, and "The National Nursing
Home Survey, 1977 Summary for the United States," Vital
and Health Statistics, Series 13, No. 43 (Hyattsville,
Md.: June 1980), p. 45, for 1977.

reported in the two NNHS's. The criteria and questions used to determine that a patient was dependent in these activities differed in the two surveys; some items on the 1977 survey identified a person as dependent for a lesser amount of assistance than reported in the 1973-74 survey. The higher proportions of patients dependent in five of the six activities in 1977 compared with 1973-74 would suggest that nursing home patients in 1977 were considerably more dependent than the population surveyed in 1973-74; however, the extent to which the changes in the survey questions affected the increase in percentages is unknown. Nevertheless, the percentage increases are sufficiently large to warrant further investigation of the possibility that the average dependency levels of nursing home residents are increasing.

When these data on dependencies in activities of daily living are combined with the Katz index of dependency, similar conclusions about increasing dependency emerge. For example, as shown in table 3, the percentage of patients who were not dependent in 1977 in any activities (i.e., independent) was less than half the percentage in 1973-74 (9.6 versus 23.5 percent). In the 1973-74 survey, 14 percent of nursing home patients were reported to be dependent in all six categories of daily living; however, in 1977, 23 percent were dependent in all six categories. There were few changes in the demographic characteristics of the nursing home population between these two surveys; therefore, demographic changes do not explain this increasing dependency in the nursing home population.

Changes in dependency levels
in the Minnesota Medicaid
nursing home population

Because the national survey data did not provide estimates at the State level, they cannot be used to determine the conclusiveness of this trend toward increasing dependency or whether it occurred consistently across the States.* Data available for a 4-year period in the State of Minnesota (1976-79) contained more specific measures of patient dependencies; this enabled us to examine changing patient dependency for a more recent time period and in considerably more detail for this sample of Medicaid recipients.

The Minnesota Medicaid population was slightly older in 1979 than in 1976, increasing in average age from 82.5 to 83.2. More importantly, the percentages of residents in different age groups shifted. As a percentage of the total nursing home population 65 and older, those between 65 and 75 declined from 20.6 percent to 19.4 percent; those in the oldest group (86 and older) increased

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*State-level data were available from the 1977 NNHS on patient characteristics in Calif., Ill., Mass., N.Y., and Tex. However, because it was only for 1 year, changes over time cannot be evaluated.

from 39.5 percent to 43.0 percent from 1976-79. On the basis of these trends and the characteristics of nursing home populations previously described, some moderate increase in dependency levels might be expected in this State.

In fact, the Minnesota data (in table 4 on the next page) show that nearly every category of functional dependency reflects a trend of increasing dependency during the years 1976-79.* In addition, the average number of dependencies for each Medicaid patient increased over the 4-year period. Using a point scoring system which bases estimates of nursing care time on the functional dependencies assigned, the average overall dependency also increased over the 4-year period. On the basis of the assigned point score, increasing dependency led to an estimated increase in the average amount of nursing time required in caring for these patients.** This additional nursing time would suggest that staff and nursing costs could also increase, thereby adding to the cost of care for these patients. Two functional dependencies which declined during this period—orientation and behavior—may reflect a slowing of the previous trend of deinstitutionalization of patients from mental institutions.

Trends in the characteristics
of new Medicaid admissions
to nursing homes in Minnesota

The data on Minnesota Medicaid patients also allowed us to examine characteristics of new admissions to nursing homes from 1976 to 1979. New admissions were defined as patients with an admission date in the year of the review and the absence of a Medicaid record in prior years. Generally, new admissions made up a fairly small percentage of the Medicaid nursing home population

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*The results in this section technically cannot be subjected to statistical testing, because the data represent the entire Medicaid population of Minnesota nursing homes. However, if the statistical tests are performed under the assumption that the data were gathered at only a single point in time and, therefore, may not be representative of data that might be obtained at another time, the results are almost all significant at the .05 level and in many cases at the .001 level of probability. This means that there is a high probability that differences noted over the 4-year period are meaningful. For an explanation of the statistical terms used throughout the chapters, see appendix III.

**The Minnesota Department of Health adopted a scoring system that assigns different points to varying levels of dependency in each of 14 functional areas. Each point corresponds to an estimated 3.5 minutes of nursing time for each day. See appendix II for a table showing the point values for 14 areas of functional dependency.

Table 4

Characteristics of Dependence in Minnesota Medicaid Patients
and New Medicaid Admissions in 1976-79

	Medicaid patients				New Medicaid admissions			
	1976	1977	1978	1979	1976	1977	1978	1979
Type of dependence								
Functional a/								
Dressing	68.5%	70.7%	71.6%	71.1	67.6%	69.6%	71.1%	71.6%
Grooming	70.8	73.6	74.2	72.5	69.5	72.3	73.7	72.9
Bathing	91.3	94.0	94.8	94.7	91.1	94.7	96.4	96.8
Eating	36.2	38.5	40.4	41.7	34.2	34.6	36.5	38.5
Bed mobility	29.1	31.2	32.5	33.5	25.9	27.1	27.2	29.9
Transferring	44.1	44.2	45.6	45.9	42.4	43.0	43.5	46.1
Bedfast	0.6	0.6	0.5	0.6	0.4	0.3	0.7	1.0
Walking	63.0	66.0	67.6	69.1	62.6	66.5	66.6	70.1
Do not walk	23.0	24.2	25.7	26.2	19.5	17.9	17.6	20.9
Wheeling b/	82.1	84.4	86.8	87.7	82.6	83.9	85.6	86.2
Communication	26.6	31.4	31.3	31.8	21.1	26.2	24.4	26.9
Hearing	30.8	32.2	31.3	31.8	28.4	30.9	29.1	28.3
Vision	76.9	82.1	83.1	84.6	79.1	84.8	84.6	86.5
Orientation	62.7	62.9	62.2	62.4	59.3	60.4	56.1	56.5
Behavior c/	46.9	51.4	53.2	52.4	45.3	49.3	48.5	45.5
Toileting d/	50.1	52.4	54.3	55.5	48.8	50.7	51.3	55.4
Self-preservation	--	86.6	88.7	90.8	--	87.6	88.9	90.4
Lawton and Brody Physical Self-Maintenance e/								
Independent	6.5%	4.3%	3.7%	3.7%	6.6%	3.1%	2.7%	1.9%
Dependent in:								
1 activity	12.3	11.0	10.4	10.7	12.6	12.9	11.2	10.2
2 activities	11.0	11.6	11.6	11.8	11.2	12.2	11.5	13.0
3 activities	11.2	11.3	11.7	11.0	11.4	10.4	13.0	12.1
4 activities	12.5	12.7	12.0	11.6	12.6	14.6	13.9	12.4
5 activities	17.7	17.7	17.6	17.3	19.2	19.7	19.4	20.2
6 activities	29.0	31.3	33.0	34.1	26.3	27.2	28.3	30.2
Mean no.	3.80	3.95	4.03	4.04	3.74	3.88	3.96	4.04

(Table 4 continued)

	Medicaid patients				New Medicaid admissions			
	1976	1977	1978	1979	1976	1977	1978	1979
Minn. dependency mean no.								
Point score f/	30.5	31.1	32.1	32.6	27.6	27.7	27.6	28.6
Nursing min/day g/	106.6	108.8	112.4	114.7	96.6	96.8	96.7	100.0

a/Adjusted to exclude those recipients for whom a value for the item was not given. For no category were the nursing values more than 0.1 percent. Values for hearing, vision, and orientation were unknown for 1 to 2 percent of the recipients.

b/Includes categories "not available" and "bed or chairfast." We were unable to distinguish these because of Minnesota error in coding. Since, for other categories, no value was given in only a few instances, we believe that these percentages are accurate.

c/Includes those identified as potential behavior problems.

d/Includes those with catheter or ostomy.

e/The score on this scale is based on the number of dependencies in six areas: toileting, eating, dressing, grooming, walking, and bathing. A missing value for an area of dependency was assigned a zero (independence) to derive a final score. (See appendix II for further discussion regarding the choice of a dependency measure for Minnesota data.) Percentages may not add to 100 because of rounding.

f/For wheeling, no points were assigned to cases with no value as well as those "bed or chairfast." We were unable to distinguish these categories because of an error in coding.

g/Approximately 3.5 minutes of care = 1 point.

in all 4 years; they also declined as a proportion of the total during this time.*

Table 4 also shows changes in several measures of dependency for new admissions over the 4 years. For most of the functional dependencies, the percentages of new admissions who were dependent in 1979 was higher than in 1976, many by over 4 percentage points. This increase was most pronounced for dependency in walking, eating, and toileting. On Lawton and Brody's Physical Self-Maintenance Scale, the percentage distribution of scores for each year indicates that in 1979 a lower percentage of elderly were independent in all six activities compared to 1976.** Patients were dependent in 1979 in a mean of 4.04 activities and, in 1976, in a mean of 3.74 activities. The mean weighted functional dependency score for those admitted in 1979 was higher than the mean score in 1976 (28.6 versus 27.6 and 100.0 minutes of nursing time versus 96.6 minutes). Although this variable did not show a steady increase over time, this trend, combined with the other findings, suggests that each year's new Medicaid admissions to Minnesota nursing homes were more dependent than the previous year's admissions over the 4-year period for most measures of dependency.

In summary, available data indicate that the elderly population in nursing homes appears to have become more functionally dependent in the activities of daily living through the 1970's.*** These trends are likely to continue because of the impact of pre-admission screening of nursing home applicants, the utilization review of residents in facilities, and the increasing availability of community-based services, all of which are designed to allow people to remain in their communities longer. These suggested trends in dependency have implications for Medicaid costs, because Medicaid pays for a substantial group of these patients once they are

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*The numbers of new Medicaid admissions for 1976, 1977, 1978, and 1979 were 2,278, 1,585, 1,367, and 1,389, respectively, and represented 12.1, 8.0, 6.7, and 6.6 percent of the total number of Medicaid patients in those years.

**This scale indicates a patient's dependency in six activities of daily living (toileting, eating, dressing, grooming, walking, and bathing). (M. P. Lawton and E. M. Brody, "Assessment of Older People: Self-Maintaining and Instrumental Activities of Daily Living," The Gerontologist, Vol. 9, 1969, pp. 179-86.)

***A recent study of four admission cohorts admitted to a Florida geriatric long-term care facility also found that the most recent admission cohort (1980) was more infirm, and required more nursing care, than earlier admission cohorts (from 1967, 1971, and 1975). (R. A. Pruchno and M. V. Faletti, Changing Demands of Residents in Long-Term Care Facility: Implications for Health Care Services, Miami Jewish Home and Hospital for the Aged, Miami, Florida, undated.)

institutionalized. If their dependency level is increasing, they
may require more intensive care, which could result in higher costs
to nursing homes and Medicaid for each patient.

TRENDS INDICATE THAT THE POPULATION LIKELY
TO USE NURSING HOMES MAY GROW SUBSTANTIALLY

The analysis above focused on identifying the characteristics
of the elderly individuals who used nursing homes in the past.
Below, we discuss how sociodemographic trends may affect nursing
home use and Medicaid in the future. The section examines this
issue on the basis of trends in the characteristics that have been
identified as leading to nursing home use.

In general, dramatic increases in the size of the elderly
population are assumed and projected for the next 50 years. The
total population 65 and older is expected to increase from 23 mil-
lion in 1976 to 32 million in the year 2000 and to 45 million in
2020. It is estimated that between the years 1976 and 2000, the
age group 65-74 will grow by 23 percent, while growth rates for the
age groups 75-84 and 85 and older will be 57 and 91 percent, re-
spectively. 29/

The increasing average age of the total population is a
reflection of a gain in life expectancy and a drop in the birth
rate. Between 1966 and 1977, there was a 26 percent decrease in
the death rate among those age 85 and older, compared to a 14-19
percent decrease among those age 35-84 and a 7 percent decrease
among those age 25 to 34. These trends are markedly different from
those of the period from 1933-66, when decreases in death rates
were largest for the younger population. These changes reflect, at
least in part, the gradual replacement of infectious or acute dis-
ease as the cause of death by chronic degenerative diseases--the
type leading to nursing home care. 30/ Notwithstanding these
trends, it is unlikely, even under extreme assumptions for reduc-
tions in mortality rates, that the estimates of the size of the
elderly population over the next 25 years will be affected signifi-
cantly. 31/

However, the way in which these reductions in mortality
rates will affect the incidence of disease (morbidity) of the
elderly population is unclear. Constant or increased morbidity
rates among persons living longer would result in a larger popula-
tion of elderly at risk of nursing home care, but whether future
morbidity rates of the elderly will reflect current morbidity pat-
terns is also uncertain. A computer simulation model which assumed
constant morbidity levels by age and sex cohort projected that, if
current trends and health policies continue, the number of persons
age 65 or older in nursing homes will increase from 1.2 million in
1977 to 1.8 million by 2000. 32/

The morbidity problems of the elderly today stem from a rela-
tively small number of conditions. The 1977 NNHS, the most recent

national data, indicate that a relatively high percentage of
nursing home residents had been given two primary categories of
diagnosis--diseases of the circulatory system (40 percent) and
mental disorders and senility without psychosis (20 percent). 33/
Within these two primary categories, arteriosclerosis and forms
of senility accounted for the most frequent diagnoses.* Of other
diagnostic categories, arthritis and rheumatism and diabetes were
most frequent. Based on these patterns, a recent study proposal by
the Office of Technology Assessment suggested that "we may expect
substantial increases in the need for institutions and the cost of
care as the population ages based on current trends." 34/ This
forecast is supported by a Bureau of the Census publication which
concluded that the growth of the elderly population will lead to a
great increase in the demand for health care, even if current per
capita demand remains stable. 35/

Despite the potentially increasing numbers of disabled
elderly, it is expected that there will be a continuation of tech-
nological and biomedical advances which should be considered in
assessing future need for nursing home care. Evidence has begun
to emerge of incremental improvement in the management of chronic
conditions, particularly leading to reductions in the rate of
deaths from heart and cerebrovascular diseases. 36/ Prevention and
amelioration of chronic degenerative diseases are only now begin-
ning, but even a moderate retardation in the rate of progression
of any chronic disease is estimated to increase longevity substan-
tially and delay nursing home use. 37/ More effective diagnosis
and management of reversible forms of senility, stabilization of
mental deterioration, and improvements in prosthetic technology
are likely. 38/

The Office of Technology Assessment is conducting a study to
determine the extent to which these technological advances may
prevent or alleviate the effects of chronic conditions or impair-
ments. 39/ In addition, several Federal agencies, including the
National Institute of Mental Health, the National Institute of
Neurological and Communicative Disorders and Strokes, the Admin-
istration on Aging, the National Institute on Aging, and the Veter-
ans Administration are funding basic research into the causes and
treatment of Alzheimer's disease, believed to affect 50 to 60 per-
cent of the elderly with mental disorders. 40/

Demographic trends are also expected to influence the living
arrangements of the elderly, their informal support systems, and

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*Forms of senility included senile psychosis (1.6 percent),
 chronic brain syndrome (7.4 percent), and senility without psy-
 chosis (2.0 percent). Alzheimer's disease, which may account
 for a large percentage of those suffering from mental disorders,
 was not included as a separate diagnostic category in the NNHS.
 HHS, NCHS, "The National Nursing Home Survey: 1977 Summary for
 the United States," Vital and Health Statistics, Series 13, No. 43
 (Hyattsville, Md.: June 1980), p. 31.)

their need for nursing home care. If we take into account the different life expectancies of the two sexes and a growing unmarried population, we can expect widowed elderly to increase 33 percent by the year 2000, the single elderly by 25 percent. 41/ In the future, the elderly will also have fewer siblings and children to support them, primarily because of recent and projected low fertility rates. In other words, there is more likelihood that the elderly will live alone, a factor known to be associated with increased nursing home use. According to the Bureau of the Census, a zero population growth situation

> "will be characterized by a smaller proportion of elderly persons who have living relatives of the same or next generation, a higher proportion of elderly persons in the population, and a higher ratio of aged persons to persons of the usual working ages. This situation suggests that Government may be expected to play a bigger part in the support of the elderly, particularly in providing health and other services." 42/

In summary, if current trends continue, there will be a large increase in the population having the characteristics associated with nursing home use. The older, more disabled elderly persons who cannot be supported adequately by informal or formal community services will use nursing home services. Without dramatic breakthroughs in medicine or technology, which could reduce the close relationship between chronic illness, disability, mental impairment, and advanced old age, the potential burden on the Medicaid program is likely to increase in two ways. First, there may be a sizeable increase in the population at risk of institutionalization; second, the intensity of the services this population may need could increase significantly with increasing dependencies.

SUMMARY

The target population for nursing home care is a product of complex interactions among individual medical, social, and economic circumstances and Federal and State health policies which affect the availability and use of nursing home services. As a result, it is not possible to measure need or demand for nursing home care. Instead, estimates of the number of persons likely to use nursing home care are based on characteristics of people who have used nursing homes in the past.

On the basis of a study which merged data files estimating these characteristics for both the institutionalized and noninstitutionalized populations, the major predictors of nursing home use among the elderly are

> --whether they are dependent in the basic activities of daily living for eating, toileting, bathing, and dressing;

> --whether they are mentally ill or have a diagnosis of injury; cancer; or digestive, metabolic, blood, or genitourinary disorders;

35

--how old they are; and

--whether, with these characteristics, they live alone or
have help, as from a spouse, family, or friends.

An estimated 2,880,000 civilian Americans suffered dependency
in personal care ability in 1977; nearly 71 percent of these per-
sons were 65 or older. Nearly 40 percent of this population re-
sided in nursing homes, and almost all nursing home residents had
one or more personal care dependencies.

Most nursing home patients, on any given day, are functionally
dependent or mentally impaired or both. The length of stay for
some patients is quite long; one statistical model of national data
estimated that stays for typical long-staying nursing home patients
were 2.5 years. Long-stayers have been identified as more likely
to be women, unmarried, diagnosed as having mental illness or being
senile rather than having other chronic conditions, and supported
by Medicaid. Data from national surveys and one State survey of
Medicaid patients suggest that nursing home patients and new admis-
sions, in addition to their long stays, have grown functionally
more impaired over the past several years and have care needs
that are more intensive than the needs of previous years. This
increasing dependency appears to have led, in at least one State,
to an increase in the average amount of nursing time it is expected
these patients will need.

A review of the characteristics leading to nursing home use
indicates that in the future the at-risk population will grow.
And an increased availability of home health and other support
services, together with preadmission screening, may delay entry
into nursing homes for some portion of the at-risk population,
but it could, at the same time, increase the dependency levels
of the elderly population that does enter nursing homes.

Overall, unless major breakthroughs in the treatment of
chronic diseases occur, extended life expectancies, with greater
likelihood of chronic disabling diseases and a reduced number of
family members able to provide informal care, will lead to a net
increase in the population most likely to need intensive nursing
home services.

NOTES

1/42 U.S.C. 1396.

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CHAPTER 3

DIFFERENCES IN STATE SPENDING

FOR MEDICAID NURSING HOME CARE

The previous chapter identified two trends which could have
important implications for the Medicaid program: a continuing
increase in the population most likely to need and use nursing
homes and an increasing dependency of nursing home residents who
may require costlier care. Both trends suggest that nursing home
costs will be subjected to increasingly strong upward pressures.
At the same time, Medicaid expenditures for nursing home care are
already of major concern to the States and the Federal Government
since these expenditures have increased at a high rate in the past.

Virtually all States have problems financing Medicaid nursing
home care. How much they spend for this service, however, varies
substantially. The sections below look at this issue by examining

—how Federal, State, and local spending for Medicaid nurs-
    ing home care varies,

—how State contributions to Medicaid nursing home spending
    for each elderly resident vary, and

—how the Federal Medicaid contribution (the medical assist-
    ance percentage) affects nursing home expenditure levels
    across States.

NURSING HOME SPENDING VARIATION
WITHIN THE MEDICAID PROGRAM

Medicaid nursing home expenditures were used as the most
adequate proxy for examining variation in State Medicaid nursing
home services because data were unavailable to compare Medicaid
nursing home use differences across States.* Expenditure data

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*Some State expenditure variation may be accounted for by differ-
 ences in the amount of patient cost-sharing that Medicaid-eligible
 patients are required to contribute to the cost of their care and
 by differences in the State-determined reimbursement rates.
 However, it was not possible to examine Medicaid use variation
 (i.e., Medicaid SNF and ICF patient days for each 1,000 State
 elderly residents) because our survey results indicated that
 available data on patient days were incomplete and unreliable.
 Patient-day data that we collected from the States often differed
 substantially from the same data that State Medicaid agencies
 reported annually to HCFA. In addition, these data were often
 inconsistent within the same State from year to year and
 unavailable during some part of the 5-year period we examined.

for fiscal years 1976-80 from HCFA were used to compare differences in State Medicaid nursing home programs. While reporting changes that were introduced in 1980 and general inconsistencies in State reporting practices create problems for analysis, these State data are adequate to show both the extent of nursing home expenditures in the States and a wide diversity in growth patterns for these expenditures.*

Proportion of Medicaid expenditures
spent on nursing home services

Figure 2 on the next page shows Federal, State, and local Medicaid nursing home expenditures as a percentage of total Medicaid for fiscal year 1980 for each State. The States are ranked by percentage of Medicaid funds devoted to nursing home services; within each column, States spending the most appear at the top, States spending the least at the bottom. Nationally, the percentage was 34 percent, but the range was from 22 percent in California to 61 percent in New Hampshire. Twenty-one States spent 40 percent or more of their Medicaid budgets on nursing home care.**

While spending for nursing home care for the elderly is a large component of States' Medicaid budgets, States have developed Medicaid programs which vary widely in the extent and type of services provided. The variety of and limitations placed on Medicaid services (e.g., the number of optional services covered and limitations on the number of inpatient hospital days and physician visits which will be paid), as well as the groups of persons covered, help determine the percentage of a State's Medicaid expenditures accounted for by its nursing home program. The significance of spending for nursing home care across the States is reviewed below.

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*Details about these data are presented in appendix IV. In particular, some States have not reported expenditures for ICF-MR's separately from other ICF expenditures. These cases are noted in the tables and the text below.

**Data on Medicaid nursing home expenditures as a percentage of total Medicaid spending for 1976-80 are presented in appendix V. In the District of Columbia, nursing home services represented only 9 percent of the Medicaid budget. That the percentage is low may be because of the unique conditions there (e.g., a very large AFDC population and the fact that it is a city, not a State). Because this figure distorts the range in State spending variation, it is excluded from this general discussion of the interstate range of spending patterns. In fiscal year 1980, Illinois, Maine, and Maryland included expenditures for ICF-MR's in nursing home data reported to HCFA. These data have been adjusted to exclude ICF-MR expenditures by using the proportion of ICF-MR to total ICF expenditures in preliminary HCFA 1981 (Ill. and Maine) and 1982 (Md.) data.

Figure 2

Percentage of State Medicaid Programs Spent on Nursing Home SNF and ICF Services, FY 1980 a/						
			Utah			
			Mississippi			
			New York	South Dakota		
			Louisiana	Montana		
			Tennessee	Alabama		
			Missouri	Minnesota		
			Georgia	Connecticut		
			Ohio	Idaho		
		New Jersey	Florida	Texas		
		West Virginia	Virginia	Alaska d/		
		Delaware	South Carolina	Maine b/		
		Michigan	Kansas	Nebraska		
		Illinois b/	Hawaii	Colorado		
		Massachusetts	Kentucky	Arkansas		
		Pennsylvania	Rhode Island	Iowa	Wyoming	
		Maryland c/	Vermont	Nevada	North Dakota	
District		New Mexico	Oregon	Oklahoma·	Wisconsin	
of Columbia		California	North Carolina	Washington	Indiana	New Hampshire
0-9%	10-19%	20-29%	30-39%	40-49%	50-59%	60-69%

SOURCE HCFA Medicaid State Tables (Washington, D.C.: 1976), and unpublished HCFA tables for 1977-80.

a/Percentages are rounded. States are ranked within each column, with the highest percentage at the top.

b/1980 expenditures have been adjusted, using 1981 preliminary data, to remove expenditures
for intermediate care facilities for the mentally retarded.

c/1980 expenditures have been adjusted, using 1982 preliminary data, to remove expenditures
for intermediate care facilities for the mentally retarded.

d/HCFA substituted 1979 data for 1980 data because Alaska did not report 1980 data.

Growth in Medicaid nursing home
and non-nursing home expenditures

Between 1976 and 1980, the average annual growth rate for national Medicaid nursing home expenditures exceeded that of non-nursing home expenditures (14.5 versus 12.8 percent). The rate of increase for nursing home care also exceeded that of the National Nursing Home Input Price Index in the same period by almost 6 percent.* 1/ The States varied widely, however, both in the relative growth of nursing home versus non-nursing home spending and in nursing home spending growth over the 5-year period.

Figure 3, on the following page, illustrates the growth of nursing home and non-nursing home spending. Nursing home expenditures grew faster than the rest of the Medicaid program in 26 States, at the same rate in 3 States, and at a lower rate in 20 States and the District of Columbia.** Many States with large Medicaid programs, such as California, Illinois, Michigan, New York, and Pennsylvania, had relatively slow growth in both nursing home and non-nursing home expenditures.*** Other States, most notably Alaska, Delaware, North Carolina, and Utah, saw rapid growth in both components of their Medicaid programs.

The growth of State Medicaid nursing home expenditures and variation in growth rates are summarized in figure 4 on page 45.**** Over the 5-year period, most States (30) had substantial

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*The National Nursing Home Input Price Index is an index developed by HCFA as a better measure than the Consumer Price Index for reflecting prices faced by skilled nursing facilities. The index consists of two parts, wage and non-wage prices.

**The District of Columbia had the only decline in Medicaid nursing home expenditures--from $13.4 million in 1976 to $8.9 million in 1979, a 12.7 percent annual decrease. However, spending in 1980 reached $15.9 million. The reasons for these variations are unknown.

***Illinois data include expenditures for ICF-MR's.

****As indicated in figure 3, growth rates for 12 States include expenditures for intermediate care facilities for the mentally retarded because these States did not report data for ICF-MR care separately in 1976 or 1980. As the figure shows, these States appear throughout the range of growth rates. Therefore, if these States were excluded from the analysis, the variation in growth rates would continue to be quite broad. Further, mean growth rates in the 12 States which include ICF-MR data do not differ from those in the other 38 States at the .01 level of significance, and the mean growth rate for the 38 States without ICF-MR expenditures does not differ statistically from that of all 50 jurisdictions.

Figure 3

Average Annual Growth in Medicaid Nursing Home and Non-Nursing Home Expenditures for the Nation and by State, FY 1976-80 a/

■ ■ ■ Medicaid nursing home expenditures

━━━ Medicaid non-nursing home expenditures

United States 14.5 / 12.8

State	Nursing home	Non-nursing home
Missouri b/	44	16
Nevada b/	37	9
West Virginia	33	10
Delaware	30	24
North Carolina	28	22
New Hampshire b/	27	14
Kentucky	25	17
Louisiana	25	20
South Carolina	25	26
Alaska c/	25	28
Rhode Island	24	12
Wyoming	23	19
Maine b/	22	12
Florida b/	22	23
Tennessee	21	21
New Mexico	21	18
Minnesota	21	13
Montana	21	18
Mississippi	21	16
Wisconsin	21	11
Utah	20	25
Virginia	20	19
Arkansas b/	19	20
South Dakota	18	26
Ohio	18	15

State	Nursing home	Non-nursing home
Hawaii	17	15
North Dakota	17	17
Connecticut b/	17	15
Maryland b/	17	6
New Jersey	17	17
Nebraska	16	18
Washington b/	16	17
California b/	16	11
Indiana	16	14
Oregon	16	19
Idaho	15	13
Kansas	15	11
Alabama b/	15	13
Georgia	13	20
Colorado	13	15
Illinois b/	12	13
Iowa	12	23
Vermont	11	14
New York	11	7
Texas	10	17
Oklahoma	9	16
Massachusetts	9	22
Michigan	7	13
Pennsylvania	6	8
District of Columbia	4	13

SOURCE HCFA, Medicaid State Tables (Washington, D.C.: 1976) and unpublished HCFA tables for 1977-80.

a/ Ranked by growth in nursing home expenditures; figures are rounded.

b/ Expenditures for intermediate care facilities for the mentally retarded are included within nursing home expenditures in 1976 or 1980 or both. This may affect the average growth rate presented for these States.

c/ HCFA substituted 1979 data for 1980 data because Alaska did not report 1980 data; however, the growth rate was calculated over 5 years.

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Figure 4

Growth of Medicaid Nursing Home SNF and ICF Expenditures, FY 1976-80					
Texas Oklahoma Massachusetts Michigan Pennsylvania District of Columbia	Kansas Alabama a/ Georgia Colorado Illinois a/ Iowa Vermont New York	Virginia Arkansas a/ South Dakota Ohio Hawaii North Dakota Connecticut a/ Maryland a/ New Jersey Washington a/ California a/ Indiana Oregon Idaho	Kentucky Louisiana South Carolina Alaska b/ Rhode Island Maine a/ Wyoming Florida a/ Tennessee New Mexico Minnesota Mississippi Wisconsin Utah	Delaware North Carolina New Hampshire a/	Missouri a/ Nevada a/ West Virginia
0-9.9%	10.0-14.9%	15.0-19.9%	20.0-24.9%	25.0-29.9%	30.0-45.0%

SOURCE: HCFA, Medicaid State Tables (Washington, D.C.: 1976), and unpublished HCFA tables for 1977-80.

a/ Includes expenditures for intermediate care facilities for the mentally retarded.

b/ HCFA substituted 1979 data because Alaska did not report 1980 data.

annual expenditure growth ranging from 15.0 to 24.9 percent, and 6 States had an expenditure growth rate of 25 percent or higher.

MEDICAID NURSING HOME EXPENDITURES
FOR EACH ELDERLY STATE RESIDENT

Differences in State spending for nursing home care reflect differences in State policy regarding the allocation of resources. These policy differences are an outcome of complex, often unique historical, political, and economic factors affecting State budgetary processes as well as specific State responses to the varying needs and demands of the State population. Given these unique State differences, this section examines how States vary in their spending for nursing home care for their elderly residents.

As discussed in chapter 2, it was not possible to determine which factors clearly lead to the need for nursing home care. Therefore, it was also not possible to examine how much each State spent for each person in need of Medicaid nursing home care and whether this amount varied across the States. Instead, variation in State nursing home spending was examined in terms of expenditures for each elderly State resident.

Four measures to assess State spending for each elderly resident were examined. The first was State and local Medicaid nursing home expenditures for each elderly State resident; the second measure adjusted the first measure to reflect differences in State nursing home wage levels.* The third measure was Federal, State, and local nursing home expenditures for each elderly State resident, and the fourth was this figure adjusted to reflect differences in State nursing home wages.

Table 5 illustrates the great variation in spending for elderly residents among the States, ordered by State and local Medicaid expenditures for each elderly resident. The first pair of columns shows State and local average expenditures for each

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*Because labor costs represent 60 percent of nursing home costs, State average annual nursing home wages were used to adjust for differences across States in labor costs. Adjusted State spending was computed by dividing State Medicaid nursing home expenditures by the ratio of State annual nursing home wages to the U.S. average nursing home wage. (HHS, NCHS, "Utilization Patterns and Financial Characteristics of Nursing Homes: 1977 National Nursing Home Survey," Vital and Health Statistics, Series 13, No. 53 (Hyattsville, Md.: August 1981), p. 4.) Nursing home wages were obtained from the Bureau of Labor Statistics Establishment Survey 202. This is a crude measure of wages in that full- and part-time nursing home employees and their wages are grouped together. Adjustments in the differences in nonlabor costs could not be made because State-specific data on these costs are not available.

Table 5

1980 Medicaid Nursing Home Expenditures
for Each State Elderly Resident

	State and local				Federal, State, and local			
	Unadjusted		Adjusted		Unadjusted		Adjusted	
	$	Rank	$	Rank	$	Rank	$	Rank
Alaska a/	486	1	263	3	972	1	526	3
New York	382	2	252	4	764	2	504	4
Wisconsin	270	3	274	1	642	3	651	1
Minnesota	255	4	273	2	574	4	616	2
Connecticut	222	5	213	5	444	5	425	8
Hawaii	212	6	171	9	424	7	342	19.5
Massachusetts	181	7	196	7	374	10	346	18
Rhode Island	178	8	202	6	422	8	478	5
New Hampshire	166	9	164	10	427	6	423	9
Michigan	162	10	175	8	323	14	349	15
Washington	155	11	158	11	311	19	316	24
Colorado	144	12	156	12	308	22	333	22
Nevada	138	13	113	29	276	27	226	41
Indiana	135	14	147	14	316	17	348	17
Texas	131	15.5	154	13	314	18	370	10
New Jersey	131	15.5	120	25	263	29	240	39
Illinois b/	127	17	134	18	255	31	270	32
Montana	126	18	122	23.5	352	12	341	21
California	125	19	122	23.5	251	32	245	38
North Dakota	123	20.5	139	15.5	318	15	361	12
Maine b/	123	20.5	139	15.5	403	9	455	6
Wyoming	115	22.5	103	33	230	38	205	43
Louisiana	115	22.5	134	18	368	11	435	7
Delaware	113	24	128	21	225	40	255	36
Ohio	108	25.5	117	26.5	242	35.5	262	34
District of Columbia	108	25.5	97	36.5	215	42	196	45
Virginia	106	27	109	32	244	34	252	37
Iowa	105	28	134	18	242	35.5	309	26.5
Georgia	105	29.5	117	26.5	317	16	353	13

(Table 5 continued)

	State and local				Federal, State, and local			
	Unadjusted		Adjusted		Unadjusted		Adjusted	
	$	Rank	$	Rank	$	Rank	$	Rank
Vermont	105	29.5	110	30.5	332	13	349	15
Kansas	104	31.5	130	20	224	41	279	31
Oklahoma	104	31.5	124	22	286	24	342	19.5
Maryland c/	100	33	98	35	201	44	197	44
Nebraska	97	34	110	30.5	228	39	258	35
South Dakota	93	35	115	28	297	23	367	11
Utah	90	36.5	97	36.5	281	25.5	302	28
South Carolina	90	36.5	89	41	310	20	309	26.5
Arkansas	84	38.5	95	38	309	21	349	15
Idaho	84	38.5	101	34	245	33	295	29
Oregon	83	40	91	40	187	45	205	42
Pennsylvania	82	41	72	46	184	46	162	47
Alabama	81	42	94	39	281	25.5	328	23
Tennessee	78	43	86	42	256	30	284	30
Kentucky	77	44	84	43	241	37	263	33
North Carolina	68	45	75	44	211	43	233	40
Missouri	64	46	74	45	161	47	186	46
Mississippi	61	47	70	47	271	28	311	25
New Mexico	46	48	50	48	149	48	161	48
West Virginia	42	49	45	49	130	49	139	49
Florida	33	50	34	50	81	50	83	50

SOURCE: HCFA, unpublished State tables, Washington, D.C., 1980, and Department of Labor Statistics, unpublished data from the Establishment Survey 202, Washington, D.C., 1980.

a/HCFA substituted 1979 data for 1980 because Alaska did not report 1980 data.
b/Adjusted using 1981 preliminary data to remove expenditures for intermediate care facilities for the mentally retarded.
c/Adjusted using 1982 preliminary data to remove expenditures for intermediate care facilities for the mentally retarded.

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elderly resident ranging from $382 in New York to $33 in Florida in 1980.* The next column shows differences in spending after expenditures were adjusted by State nursing home wages.

These adjusted nursing home expenditures for each elderly resident tended to fall into the same ranking as actual expenditures for each elderly resident although, as expected, the range was somewhat reduced.** Some changes did occur, however. For example, Alaska fell from first to third place, and New York fell from second to fourth place. Because nursing home wages can affect the cost of care substantially and these wages vary widely by region of the country, these adjusted figures are thought to provide a fairly reasonable illustration of "real" differences in State spending for nursing home care. The last two columns of table 5 show Federal, State, and local Medicaid expenditures for each elderly resident.

Not all elderly are likely to use nursing home care equally across the States, because different factors may affect their need for it differently. However, this analysis indicates that some States clearly spend more Medicaid nursing home dollars for each elderly resident than other States, both before and after adjustments for State wages are considered.

Nursing home spending variation and State fiscal effort

The variation in State spending for Medicaid nursing home services for each elderly resident reflects differences in State efforts to support these services. Spending for each elderly resident was compared to two measures of State fiscal effort: State and local nursing home expenditures as a percentage of State personal income and State and local nursing home expenditures as a percentage of State tax capacity.*** State personal income is

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*Nursing home expenditures for each elderly resident in Alaska were reported at $486 in 1979. Alaska's 1980 data were not reported to HCFA. A recent analysis of State expenditures by HCFA found similar variation in per capita spending for all sources of nursing home expenditures, except that per capita nursing home expenditures differed greatly for Alaska. (K. Levit, "Personal Health Care Expenditures by State," Health Care Financing Review, December 1982, Vol. 4, No. 2, p. 13.)

**A Spearman rank order correlation coefficient of .94 between these two variables, using 1979 data, was significant at the .001 level of probability using 1979 data.

***The measure "State tax capacity" has been developed by the Advisory Commission on Intergovernmental Relations as part of a Representative Tax System which considers 24 tax bases commonly used by the States. Using these tax bases, a formula produces

intended to measure the economic well-being of State residents, and tax capacity is intended to measure the financing ability of State governments by taking into account all potential sources of State revenues. State personal income was calculated by multiplying per capita income by State population. 2/ There was a high degree of consistency between the two variables measuring State fiscal effort--State personal income and tax capacity. States were generally ranked in the same order.*

The percentage of personal income spent toward the State share of Medicaid nursing home services, as shown in table 6, was highest in New York, while Wisconsin and Minnesota were second and third, respectively. The State with the lowest percentage of State income spent for nursing home services was New Mexico, but the percentages in Florida and West Virginia were not much higher. Most of the States (34) spent between 0.1 and 0.2 percent of their State personal income on Medicaid nursing home care. The State share of Medicaid nursing home expenditures as a percentage of State tax capacity indicated that most States (41 States and the District of Columbia) spent less than 2.0 percent of their tax capacity on nursing home services. However, this percentage was as high as 5.5 percent for 1 State (New York).

Generally, the greater the proportion of State resources directed to nursing home services, the higher the average spending for each elderly State resident.** Comparing expenditure data from table 5 with data on State spending effort in table 6, it is evident that the States that spend the highest proportion of State income and State tax capacity for Medicaid nursing home services (Connecticut, Minnesota, New York, Rhode Island, and Wisconsin) rank among the highest in spending for each elderly resident as well. Conversely, States ranking lowest in these fiscal-effort

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a composite index of State tax capacity. Our recent report recommended replacing per capita income with a Representative Tax System in computing the Federal medical assistance percentage. (Advisory Commission on Intergovernmental Relations, Tax Capacity of the Fifty States: Methodology and Estimates (Washington, D.C.: March 1982), pp. 1-3; and GAO, Changing Medicaid Formula Can Improve Distribution of Funds to States, GAO/GGD-83-27 (Washington, D.C.: March 9, 1983), p. iv.)

*The Spearman rank order correlation coefficient of these two measures was .93, significant at the .001 level of probability.

**The Spearman rank order correlation coefficient between Medicaid nursing home expenditures for each elderly resident and nursing home expenditures as a percentage of State personal income was .73, significant at the .001 level. The Spearman correlation coefficient between nursing home expenditures as a percentage of tax capacity and nursing home expenditures for each elderly resident was .61, also significant at .001.

Table 6

State and Local Medicaid Nursing Home Expenditures for Each Elderly Resident, Ranked as a Percentage of 1980 State Personal Income, 1980 Tax Capacity, and 1979 Representative Tax System Capacity Index a/

| | Expenditures as % of | | | | Representative Tax System | |
| | State income | | Tax capacity | | | |
	%	Rank	%	Rank	Index	Rank
New York	0.46	1	5.5	1	87	39
Wisconsin	0.35	2	3.6	2	96	29.5
Minnesota	0.32	3	3.1	3	102	22.5
Rhode Island	0.26	4	3.0	4	84	42
Connecticut	0.23	5.5	2.5	5.5	106	15
Massachusetts	0.23	5.5	2.5	5.5	91	36.5
New Hampshire	0.21	7	2.0	7.5	97	27.5
Maine b/	0.20	8	2.0	7.5	80	46
North Dakota	0.18	9	1.5	14.5	106	15
Hawaii	0.17	10	1.6	11.5	105	18
Arkansas	0.16	13.5	1.5	14.5	78	47
South Dakota	0.16	13.5	1.4	18.5	92	34.5
Michigan	0.16	13.5	1.7	9.5	102	22.5
Montana	0.16	13.5	1.3	23	111	9
Indiana	0.16	13.5	1.6	11.5	97	27.5
Washington	0.16	13.5	1.7	9.5	103	21
Vermont	0.15	17.5	1.5	14.5	86	40.5
Iowa	0.15	17.5	1.4	18.5	106	15
Nebraska	0.14	20.5	1.4	18.5	96	29.5
Oklahoma	0.14	20.5	1.2	28.5	113	6
Kansas	0.14	20.5	1.3	23	107	12.5
New Jersey	0.14	20.5	1.5	14.5	101	24
Illinois b/	0.13	24	1.4	18.5	112	7
Texas	0.13	24	1.1	35	122	4
Louisiana	0.13	24	1.1	35	108	11
California	0.12	28.5	1.1	35	116	5
Georgia	0.12	28.5	1.3	23	83	43
Alaska c/	0.12	28.5	0.6	47	215	1

(Table 6 continued)

| | Expenditures as % of | | | | Representative Tax System | |
| | State income | | Tax capacity | | | |
	%	Rank	%	Rank	Index	Rank
Ohio	0.12	28.5	1.3	23	99	25
Colorado	0.12	28.5	1.2	28.5	111	9
Alabama	0.12	28.5	1.3	23	76	49
Pennsylvania	0.11	35	1.2	28.5	92	34.5
Delaware	0.11	35	1.1	35	111	9
Tennessee	0.11	35	1.2	28.5	81	45
Kentucky	0.11	35	1.1	35	86	40.5
Virginia	0.11	35	1.1	35	93	33
Nevada	0.11	35	.8	44.5	164	3
Mississippi	0.11	35	1.1	35	71	50
South Carolina	0.10	40.5	1.2	28.5	77	48
Idaho	0.10	40.5	1.0	40	91	36.5
Oregon	0.10	40.5	1.0	40	105	18
District of Columbia	0.10	40.5	1.2	28.5	107	12.5
Maryland d/	0.09	44.5	1.0	40	98	26
North Carolina	0.09	44.5	0.9	42.5	82	44
Utah	0.09	44.5	0.8	44.5	88	38
Missouri	0.09	44.5	0.9	42.5	95	31.5
Wyoming	0.08	47	0.5	49	179	2
West Virginia	0.07	48	0.6	47	95	31.5
Florida	0.06	49	0.6	47	104	20
New Mexico	0.05	50	0.4	50	105	18

SOURCE: Department of Commerce; Advisory Commission on Intergovernmental Relations; HCFA.

a/100 = national; ties reported as the average rank for each tied group.
b/Adjusted using 1981 preliminary data to remove expenditures for intermediate care facilities for the mentally retarded.
c/HCFA substituted 1979 data for 1980 because Alaska did not report 1980 data.
d/Adjusted using 1982 preliminary data to remove expenditures for intermediate care facilities for the mentally retarded.

measures (Florida, New Mexico, and West Virginia) also appear at the bottom of the list of spending for each elderly resident.

As table 6 shows, the extent of State effort to support Medicaid nursing home services is not related to a State's economic well-being as measured by tax capacity.* The States that devote the largest share of resources to nursing home services are neither the wealthiest nor the poorest States. In fact, some States which are relatively poor in terms of tax capacity, such as Arkansas, Maine, New York, and Rhode Island, are among those spending the most on nursing home services for each elderly resident. States with the greatest tax capacity spend diverse proportions of State resources on Medicaid nursing home services.

This analysis demonstrates that the States' efforts to finance Medicaid nursing home services for their elderly residents are not purely a function of available State resources. Instead, States have established policies which allocate available resources differently.

THE EFFECT OF THE FEDERAL MEDICAL ASSISTANCE PERCENTAGE ON TOTAL NURSING HOME EXPENDITURES ACROSS THE STATES

As discussed in chapter 1, Medicaid payments for medical services are financed jointly by State and Federal funds. The Federal contribution for these payments ranges from 50 to 77.63 percent of the costs of the medical services in each State. 3/ The formula determining the size of the Federal contribution (referred to as the "Federal medical assistance percentage") is designed to distribute more Federal assistance to States with lower per capita incomes.** The Federal contribution is not designed to target assistance to any particular service such as nursing home care.

Table 5, on pages 47 and 48, demonstrates the impact of this formula in helping poorer States spend more on nursing home care for elderly residents. Mississippi, for example, is ranked 47th in State and local Medicaid nursing home expenditures for each elderly

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*The Spearman rank order correlation coefficient between Medicaid nursing home expenditures as a percentage of State income and State tax capacity was -.02. The Spearman rank order correlation coefficient between nursing home expenditures as a percentage of tax capacity and tax capacity itself was -.23. Neither association was significant at the .05 level of probability.

**The formula determining the Federal medical assistance percentage is: State share = (State per capita income/U.S. per capita income)^2 x 45 percent. The Federal share is 100 percent minus the State share with a minimum Federal share of 50 percent and a maximum of 83 percent. (GAO, p. 5.)

resident but moves up to 28th when Federal assistance is included and to 25th when expenditures are adjusted for State nursing home wages. Similarly, Georgia and Vermont are tied for 30th place in State and local Medicaid nursing home expenditures for each elderly resident but are 16th and 13th, respectively, in total expenditures for each elderly resident. Despite these dramatic shifts for some States, wide spending variation remains even after the Federal contribution is considered. Federal support does appear to help poorer States in spending more for each elderly resident, but great differences in State spending still exist.

Finally, in order to summarize the impact of the Federal medical assistance percentage on nursing home care, we compared 1979 per capita spending for this service, adjusted by State nursing home wages, to what would have been spent if all States spent equal amounts for each elderly resident. We found that the Federal contribution eliminated only about 8 percent of the overall variation in spending among States.* 4/

SUMMARY

This chapter examined Medicaid nursing home expenditures as the most adequate proxy for comparing differences in State Medicaid nursing home services. Efforts to analyze a standardized measure of differences in the use of Medicaid for nursing home services across States—Medicaid patient days for each 1,000 elderly State residents—were precluded by the poor quality of State data on Medicaid patient days.

Although States vary widely when different measures of expenditures were examined, nursing home expenditures represent a major financial commitment for all the States. In 1980, expenditures for nursing home services accounted for 22 to 61 percent of the States' total Medicaid budgets. Spending for nursing home services grew rapidly in most States in the period 1976-80; in 36 States, the average annual expenditure growth rate was 15 percent or higher over this 5-year period.

Medicaid spending for nursing home services is a function not of available resources but, rather, of State policies which allocate resources differently. These policies are an outcome of the complicated interaction of regional and local historical, political, economic, and demographic factors and make comparisons of State programs extremely difficult.

The result of different State Medicaid policies can be seen in the wide variation in State spending for nursing home services for each elderly State resident. After State and local 1980 expenditures for Medicaid nursing home services were adjusted for

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*This analysis excludes Alaska because nursing home wage data were unavailable.

differences in nursing home wages, the State spending the most for each elderly resident spent eight times as much as the State spending the least. States also vary greatly in the proportion of fiscal resources (as measured by tax capacity and State income) directed to Medicaid nursing home care. For example, some States which are relatively poor in terms of tax capacity are among those spending the most on nursing home services for each elderly resident.

The Federal medical assistance percentage is designed to compensate for disparities in States' fiscal resources (as measured by per capita income), but it does not target the assistance to specific Medicaid services. As a result, even though the Federal Medicaid contribution does substantially increase nursing home spending for each elderly resident in poorer States, it reduces the overall variation in State nursing home spending for each elderly resident by only about 8 percent.

NOTES

1/HHS, HCFA, Health Care Financing Trends, Vol. 1, No. 3, Spring 1980, p. 15, and Vol. 2, No. 5, March 1982, p. 18.

2/Department of Commerce, Bureau of Economic Analysis, unpublished data, and Bureau of the Census, "Age, Sex, Race, and Spanish Origin of the Population by Regions, Divisions, and States: 1980," 1980 Census of Population, Supplementary Report, Washington, D.C., May 1981.

3/GAO, Changing Medicaid Formula Can Improve Distribution of Funds to States, GAO/GGD-83-27, Washington, D.C., March 9, 1983, p. iv.

4/A discussion of this method of measuring inequality, the Gini index, is in H. R. Alker, Jr., Mathematics and Politics, The Macmillan Co., Toronto, Canada, 1965, pp. 36-42.

CHAPTER 4

NURSING HOME BEDS: THE IMPACT

OF STATE VARIATION ON USERS

AND ON MEDICAID EXPENDITURES

Nursing home bed supply, which is primarily under State control, is significant because it helps to determine how many individuals gain admission to a nursing home. Variation in supply raises the question, therefore, of whether there are differences across the States in access to care for those elderly residents who may be in need of this service. State bed supply also affects the magnitude of Medicaid expenditures for nursing home care; States with a larger bed supply generally have larger nursing home expenditures.

This chapter examines national and State trends in nursing home bed supply and presents a comparison across States. Bed availability is assessed in relation to the specific State population characteristics that serve as measures of the need for or use of nursing home care. Finally, the strength of the relationship between bed supply and Medicaid expenditures is examined, and State actions to control their nursing home expenditures through bed supply are discussed.

PROBLEMS IN COUNTING BEDS

The 1980 HHS Under Secretary's Task Force on Long-Term Care concluded that reliable data on nursing home bed supply were available only through 1976. 1/ National systems containing data on bed supply use different definitions of what constitutes a nursing home bed and are internally inconsistent. Only the major difficulties in using the two chief sources of national data--the Medicare-Medicaid Automated Certification System (MMACS) and the Master Facility Inventory (MFI)--are given here. Appendix VI lays out in detail the problems presented by these systems.

Perhaps the biggest problem with the MFI data is the inclusion of lower-level care beds that are not eligible for Medicaid participation (e.g., residential care beds). Including these beds tends to overstate the nursing home bed supply for Medicaid-eligible elderly persons. A primary difficulty with the MMACS data is the double counting of a single bed certified for both Medicare and Medicaid or for Medicaid SNF and ICF care. This problem, again, results in overstating the supply of beds available for Medicaid-eligible elderly persons. Therefore, the use of either data system leads to a belief that more nursing home beds are available to Medicaid patients than actually are.

To avoid these problems in our analysis of nursing home bed supply, we collected data directly from the States. In doing the survey described in chapter 1, we collected information on

nursing home beds from Medicaid and health department officials in 49 States and the District of Columbia. Data were collected for the 5-year period 1976-80 and included information on beds licensed by State health departments which could be certified for Medicaid, as well as those actually certified for Medicaid.

The reason that it is important to distinguish between licensed nursing home beds and Medicaid certified beds is that not all nursing homes participate in Medicaid.* The Medicaid certified bed data that we collected share similar problems with the MMAC system--some States double counted a bed certified for more than one level of care or for both Medicare and Medicaid. Although the initial intention was to use Medicaid certified bed data as a measure of nursing home bed supply for "Medicaid eligibles," the problem of double counting and missing data for Medicaid certified beds from several States in 1980 led us to use licensed bed data throughout the analysis.** Because we attempted to exclude licensed beds ineligible for Medicaid certification, the extent to which our data overstate nursing home bed supply for the Medicaid-eligible elderly population should be minimal.

The 31 States that had hospital-based nursing home beds and could report these data were also included in the analysis of nursing home bed supply. However, 18 States and the District of Columbia either did not have hospital-based nursing home beds or were unable to report this information; the American Hospital Association did not have these data either. As a result, the information used in the analysis includes hospital-based beds in 31 States. Except in Alaska and Hawaii, where hospital-based beds constituted about one quarter of all licensed nursing home beds, hospital-based beds did not represent a large percentage of nursing home beds in the States that provided these data.***

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*Also, the number of licensed beds could include some beds which do not qualify for Medicaid. We attempted to exclude, unless otherwise noted, beds in intermediate care facilities for the mentally retarded (ICF-MR's), Veterans Administration nursing homes, and residential and domiciliary homes.

**Appendix VII presents data on Medicaid certified beds for 1976-80.

***"Total licensed beds" means only free-standing licensed beds in D.C. and 18 States: Ala., Calif., Conn., Del., Ind., Ill., Iowa, La., N.J., N.Mex., N.C., Ohio, Okla., Oreg., R.I., Tex., Wash., and W.Va. Total licensed beds include hospital-based beds in 22 States: Ark., Colo., Ga., Hawaii, Idaho, Ky., Maine, Mass., Mich., Minn., Mont., Miss., Nebr., N.Y., N.Dak., Pa., S.C., S.Dak., Tenn., Utah, Wis., and Wyo. Total licensed beds include hospital-based beds in some years in 9 States: Alaska, Fla., Kans., Md., Mo., Nev., N.H., Vt., and Va. In 1980, for the 19 States that reported hospital-based beds separately, hospital-based beds comprised between 1.0 and 10.0

While substantial efforts were made to validate the survey data with other available information and in numerous followup discussions with officials in each State, our experience in collecting these data indicates that States have a difficult time keeping a consistent record of nursing home beds.*

NURSING HOME BED SUPPLY NATIONALLY
AND BY STATE FROM 1976 to 1980

In 1979, the latest year in which data were available for 49 States and the District of Columbia, there were 1,333,061 licensed nursing home beds in the country.** As shown in table 7, there was an estimated total of 1,373,293 beds in 1980, a 3 percent increase over 1979.*** For the 43 States for which data were available, bed supply grew 3.4 percent annually from 1976 to 1980. However, with an estimated national total, bed supply grew 2.9 percent nationally between 1976 and 1980.**** Although the definition of a nursing home bed has changed over the years, the National Center for Health Statistics reported that bed supply increased at an average annual rate of 8.1 percent between 1963 and 1973. 2/

For States with available data, licensed beds grew more than 15 percent a year in Hawaii, Kentucky, and Nevada over the 5-year period. In contrast, 5 States and the District of Columbia had an

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percent of all beds in 12 States, between 10.1 and 16.9 percent in 5 States, and between 17.0 and 28.2 percent in 2 States.

*Appendix VIII describes our bed data validation efforts.

**Total licensed beds include licensed ICF-MR beds in Pa. and Mass. and beds in rest homes in Ohio throughout the report.

***The most commonly cited figure for the number of nursing home beds in the country is 1.4 million from the 1977 National Nursing Home Survey (NNHS). This figure includes 167,400 uncertified beds that were most likely beds in personal care and domiciliary facilities, which are excluded in our survey, and beds in nursing homes which could be certified for Medicaid but chose not to be. When these 167,400 beds were excluded, there was a difference of about 28,000 beds between the 1977 NNHS figure and our 1977 estimated figure. (See appendixes II and IV of HHS, NCHS, "The National Nursing Home Survey: 1977 Summary for the United States," Vital and Health Statistics, Series 13, No. 43 (Hyattsville, Md.: June 1980), for a complete description of this survey's definition of nursing home beds and facilities.)

****States excluded in calculating the 1976-80 growth rate were Colo., Del., Md., N.H., Oreg., Vt., and W.Va. Data were extrapolated from data available in other years for Del., Md., N.H., Oreg., and W.Va. in 1976 and for Colo. and Vt. in 1980 to calculate an estimated growth rate.

Table 7

Average Annual Growth and Percentage Change in Total Licensed Nursing Home Beds, 1976-80 a/

	1976	1977	1978	1979	1980	Growth	Change
U.S. actual	1,183,429	1,242,140	1,293,417	1,333,061	1,352,034	3.4%	14.2%
U.S. estimated	1,224,780	1,262,888	1,298,262		1,373,293	2.9	12.1
Alabama	18,395	19,217	19,654	20,259	20,548	2.8	11.7
Alaska	459	459	644	644	543	4.3	18.3
Arkansas	19,066	18,799	19,301	19,609	19,942	1.1	4.6
California	107,680	108,233	106,932	105,801	108,221	0.1	0.5
Colorado	17,948	18,190	18,042	18,248		0.6 b/	1.7 b/
Connecticut	22,785	24,408	24,169	25,713	26,004	3.4	14.1
Delaware		2,967	2,997	3,530	3,747	8.1 b/	26.3 b/
District of Columbia	2,162	1,877	1,881	1,883	1,921	-2.9	-11.1
Florida	31,207	33,178	34,003	35,479	36,888	4.3	18.2
Georgia	29,960	30,031	30,926	31,949	32,881	2.4	9.7
Hawaii	1,753	2,433	2,857	3,135	3,239	16.6	84.8
Idaho	4,189	4,348	4,331	4,331	4,558	2.1	8.8
Illinois	81,250	80,625	84,316	86,891	87,284	1.8	7.4
Indiana	33,070	33,507	34,191	38,156	38,309	3.7	15.8
Iowa	27,395	28,284	29,166	29,854	31,277	3.4	14.2
Kansas	24,657	24,905	26,541	25,595	27,087	2.4	9.9
Kentucky	10,377	13,022	16,562	17,932	19,328	16.8	86.3
Louisiana	19,446	21,266	21,697	23,040	24,083	5.5	23.8
Maine	8,070	8,606	8,775	9,145	9,693	4.7	20.1
Maryland c/			17,674	19,847	21,169	9.4 b/	19.8 b/
Massachusetts d/	42,147	44,997	45,300	46,227	46,538	2.5	10.4
Michigan	41,137	41,596	42,366	42,839	42,730	1.0	3.9
Minnesota	37,853	38,891	40,231	40,684	41,555	2.4	9.8
Mississippi	11,757	12,187	13,152	14,441	15,042	6.4	27.9
Missouri	32,897	33,607	34,773	35,779	40,078	5.1	21.8

(Table 7 continued)

	1976	1977	1978	1979	1980	Growth	Change
Montana	7,137	7,420	7,315	7,641	7,617	1.6%	6.7%
Nebraska	18,906	19,345	18,859	18,964	18,833	-0.1	-0.4
Nevada	833	1,885	1,991	2,080	2,146	26.7	157.6
New Hampshire		5,652	5,715	5,818	6,272	3.5 b/	11.0 b/
New Jersey	23,460	24,757	24,993	25,212	25,389	2.0	8.2
New Mexico	3,181	3,221	3,447	3,845	3,463	2.1	8.9
New York	94,614	95,339	95,699	96,186	96,069	0.4	1.5
North Carolina	14,042	14,732	16,219	17,940	18,588	7.3	32.4
North Dakota	5,676	5,912	5,942	6,026	6,277	2.5	10.6
Ohio d/	62,211	64,205	67,452	68,622	71,868	3.7	15.5
Oklahoma	26,987	27,234	27,980	28,279	30,977	3.5	14.8
Oregon		14,194	14,188	14,728	14,723	1.2 b/	3.7 b/
Pennsylvania d/	66,118	68,543	71,653	74,129	78,687	4.4	19.0
Rhode Island	7,149	7,976	8,643	8,821	8,714	5.1	21.9
South Carolina	8,190	8,707	9,440	10,118	10,812	7.2	32.0
South Dakota	6,931	6,981	7,110	7,433	7,453	1.8	7.5
Tennessee	21,410	22,261	22,658	24,104	26,317	5.3	22.9
Texas	91,575	96,696	100,092	102,383	104,154	3.3	13.7
Utah	4,538	4,538	5,726	5,662	5,572	5.3	22.8
Vermont	2,997	3,058	2,895	2,926		-0.8 b/	-2.4 b/
Virginia	13,223	15,004	15,479	16,756	17,578	7.4	32.9
Washington	26,890	27,061	27,568	26,841	26,851	0.0	-0.1
West Virginia				5,112	5,394	5.5 b/	5.5 b/
Wisconsin	49,497	49,560	49,562	50,082	53,247	1.8	7.6
Wyoming	2,204	2,226	2,310	2,342	2,368	1.8	7.4

a/Excludes data for some States in some years: total States = 45 (1976), 48 (1977), 49 (1978), 50 (1979), 48 (1980), 43 (growth), 43 (change).
b/Reflects data for fewer than 5 years.
c/1978 data collected by the American Public Welfare Association. See appendix VIII.
d/Massachusetts and Pennsylvania include licensed intermediate care beds for the mentally retarded; Ohio includes rest home beds not certifiable for Medicaid.

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average rate of increase of 1 percent or less; they accounted for 22 percent of all beds in 47 States and the District of Columbia in 1980.* Finally, in 1980, over one third of the Nation's nursing home beds and elderly population were in 5 States--California, Illinois, Pennsylvania, New York, and Texas. 3/

National and State nursing home
bed/population ratios, 1976-80

The estimated number of licensed nursing home beds per 1,000 residents age 65 and older did not change nationally from 1976 through 1980, remaining at approximately 54. The elderly population and the supply of nursing home beds grew, therefore, at approximately the same rate during this period, as shown in table 8 on the next page. However, across States there was extensive diversity in bed/population ratios.

In 1980, nursing home beds per 1,000 residents age 65 and older ranged from a low of 22 in Florida to a high of 94 in Wisconsin. States with the most beds per elderly person were clustered in or near the plains States, as shown in figure 5 on page 64. Except for Georgia, the southeastern States from West Virginia to Florida tended to have the smallest bed/population ratios. A similar geographical distribution of bed/population ratios has been identified in the MFI's surveys, which first began calculating bed/population ratios in 1967. 4/

The number of beds per 1,000 residents age 65 and older remained relatively stable or declined in approximately half of the States between 1976 and 1980, as shown in figure 6 on page 65.** These States were geographically scattered and included States both with low and with high bed/population ratios (e.g., California and South Dakota). The number of beds per 1,000 elderly residents increased, although in many cases by less than 2 percent, in the remaining half of the States. (See table 8.) One third of these States had relatively low bed/population ratios to begin with in 1976. In general, bed supply grew most rapidly in States with relatively few beds per 1,000 residents age 65 and older between 1976 and 1980. For the 42 States with available data, this inverse relationship was significant.***

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*The States were Calif., Mich., Nebr., N.Y., and Wash. (294,625 beds). The percentage is based on data for 47 States and D.C.

**A change in bed/population ratios was defined as an increase or decrease of more than one bed per 1,000 age 65 and older between 1976 and 1980. West Virginia is not included because it had data for only 2 years.

***The Pearson correlation coefficient was -.31, which was statistically significant at the .02 level of probability.

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Table 8

The Number and Average Annual Growth Rate of Licensed Nursing Home Beds per 1,000 Elderly Age 65 and Older 1976-80 a/

	1976	1977	1978	1979	1980	Growth
U.S. actual	54.4	54.8	54.9	54.7	54.2	-0.1%
U.S. estimated	53.9	54.3	54.6	54.7	54.4	0.2
Alabama	48	48	49	48	47	-0.5
Alaska	51	51	64	64	45	-3.1
Arkansas	69	66	66	65	64	-1.9
California	51	50	48	46	45	-3.1
Colorado	82	81	78	76		-2.5
Connecticut	69	72	69	72	71	0.7
Delaware		56	54	62	64	4.6
District of Columbia	30	26	26	26	26	-3.5
Florida	23	23	22	22	22	-1.1
Georgia	68	66	65	65	64	-1.5
Hawaii	29	39	43	45	43	10.3
Idaho	52	52	50	48	48	-2.0
Illinois	69	68	70	71	69	0.0
Indiana	61	61	61	67	66	2.0
Iowa	74	76	77	78	81	2.3
Kansas	85	85	89	85	89	1.2
Kentucky	28	34	43	46	47	13.8
Louisiana	55	59	59	61	60	2.2
Maine	63	66	66	68	69	2.3
Maryland			48	52	53	5.1
Massachusetts b/	62	65	65	65	64	0.8
Michigan	49	49	49	48	47	-1.0
Minnesota	85	5	87	87	87	0.6
Mississippi	45	46	49	52	52	3.7
Missouri	54	54	55	56	62	3.5

(Table 8 continued)

	1976	1977	1978	1979	1980	Growth
Montana	93	94	90	92	90	-0.8%
Nebraska	96	97	93	93	91	-1.3
Nevada	18	37	36	34	33	16.4
New Hampshire		61	60	59	61	0.0
New Jersey	30	31	30	30	30	0.0
New Mexico	34	33	33	35	30	-3.1
New York	46	46	46	45	44	-1.1
North Carolina	27	28	29	31	31	3.5
North Dakota	76	77	76	75	78	0.7
Ohio b/	57	58	60	60	61	1.7
Oklahoma	79	78	79	78	82	0.9
Oregon		51	50	50	49	-1.3
Pennsylvania b/	47	48	49	50	51	2.1
Rhode Island	62	68	71	72	69	2.7
South Carolina	34	35	37	38	38	2.8
South Dakota	81	79	80	83	82	0.3
Tennessee	47	48	47	49	51	2.1
Texas	77	79	79	79	76	-0.3
Utah	48	46	56	53	51	1.5
Vermont	57	57	53	52		-3.0
Virginia	30	33	33	35	35	3.9
Washington	72	70	69	65	62	-3.7
West Virginia				23	23	0.0
Wisconsin	94	93	91	90	94	0.0
Wyoming	65	64	64	65	64	-0.4

a/Growth rates were calculated on rounded figures and may inflate the actual rate of
   growth. U.S. actual = 45 States (1976), 48(1977), 49(1978), 50(1979), and 48(1980).
b/Massachusetts and Pennsylvania include licensed intermediate care beds for the
   mentally retarded; Ohio includes rest home beds.

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Figure 5

Licensed Nursing Home Beds Per 1,000 Age 65 and Older, 1980 a/
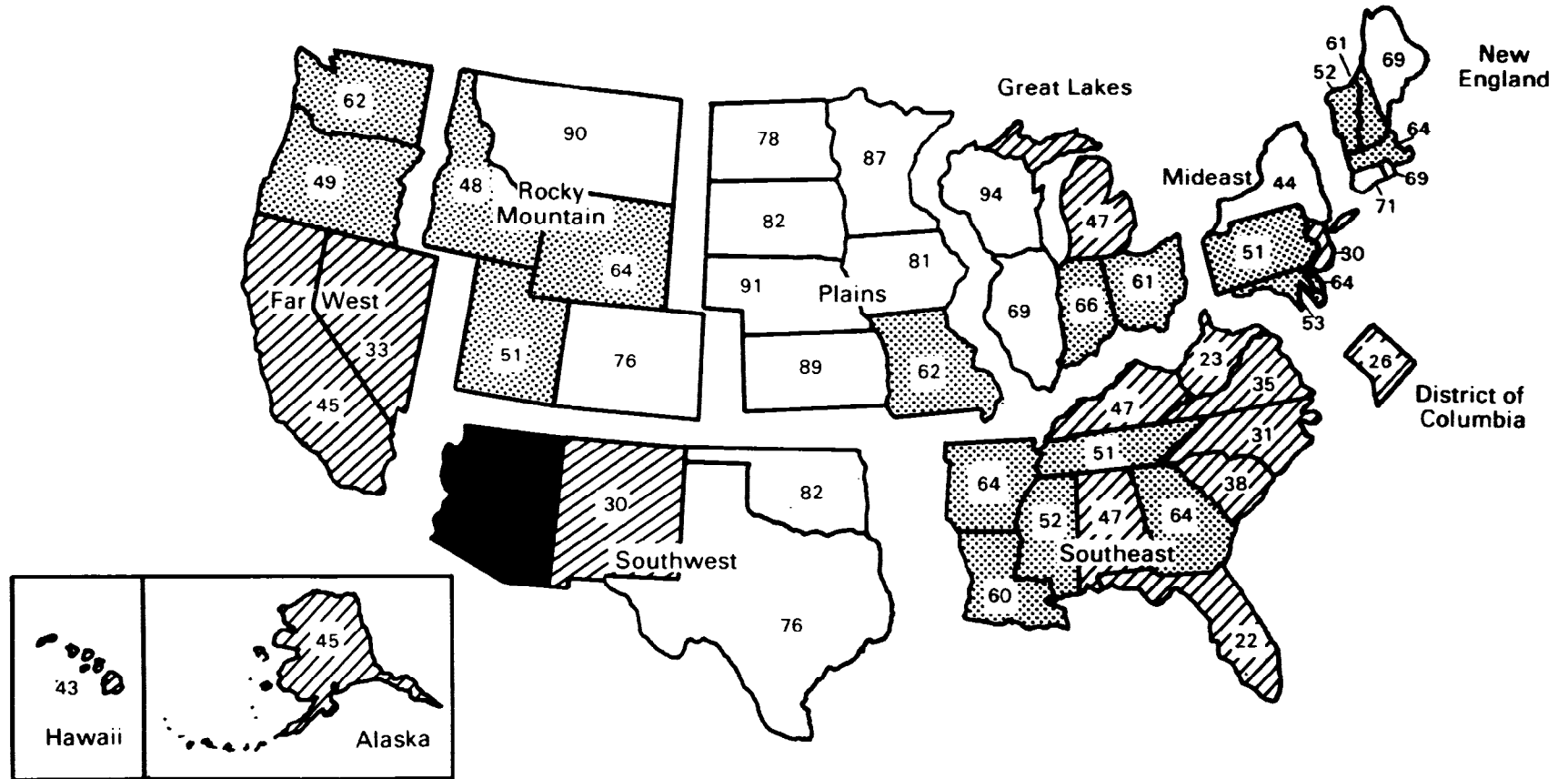
☐ 69-94 (15 States)	▦ 48-66 (19 States)	▨ 22-47 (15 States and D.C.)	■ No data (1 State)

a/ Data for Colorado and Vermont are for 1979.

Figure 6

Changes in U.S. Nursing Home Bed/Population Ratios Between 1976 and 1980 a/

| Decline (14 States and D.C.) | Relatively stable (9 States) | Increase (25 States) | No data (2 States) |
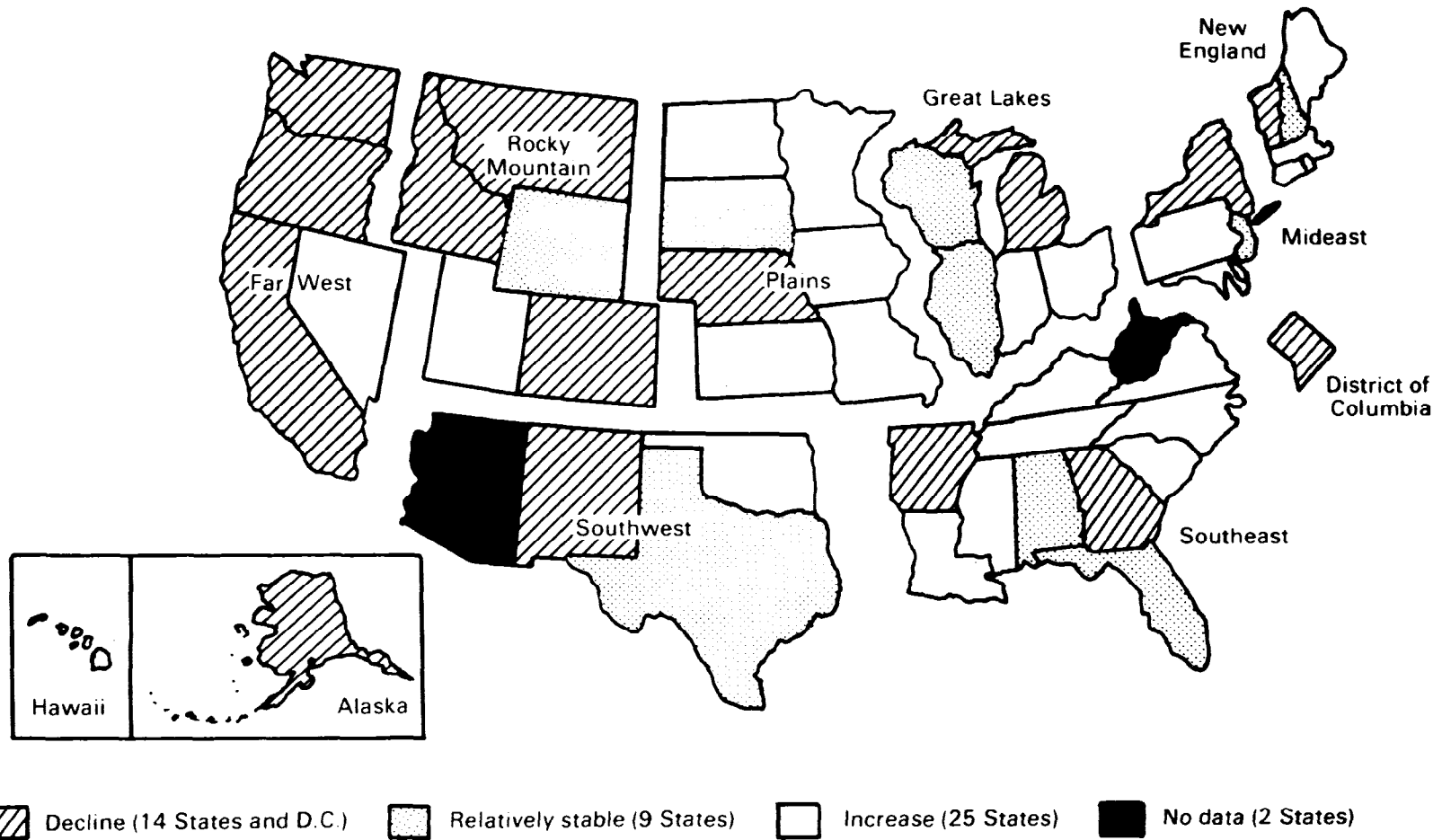
a/ Change in bed/population ratios for Arizona and West Virginia was defined as an increase or decrease of more than one bed per 1,000 age 65 and older between 1976 and 1980.

A weighted index of nursing home bed
supply, adjusted for age distribution

Variation in State bed supply can also be assessed by taking into account the age distribution of the State's elderly population and different use rates for nursing home care by different elderly age groups. Data from the 1977 NNHS were used to help us determine if a State's bed/population ratio was influenced by the size of its 85 and older population. This adjustment was based on the fact that almost 22 percent of those age 85 and older, 7 percent of those age 75 to 84, and only 1.5 percent of those age 65 to 74 were in nursing homes, according to the 1977 NNHS. The adjustment was made by applying these use rates to each State's 1980 elderly population.* Table 9 shows 1980 unadjusted and adjusted beds per 1,000 residents age 65 and older.

Table 9 indicates which States had adjusted bed/population ratios that moved closer to the national average. All States which had unadjusted bed/population ratios below the national average (54) moved closer to 54 beds per 1,000 residents age 65 and older when the national nursing home use rate was applied to their elderly population distribution.

For States with unadjusted bed/population ratios above the national average (54), most had adjusted bed/population ratios which were higher than their unadjusted bed/population ratios. For example, Texas had an unadjusted bed/population ratio of 76 beds per 1,000 residents age 65 and older. When national nursing home use rates were applied to the distribution of the elderly population in Texas, its adjusted bed/population ratio increased to 87. This indicates that Texas, and other States with a similar pattern, had an even greater supply of beds for their elderly populations than indicated by the unadjusted data.

A few States (Iowa, Kansas, Minnesota, and Nebraska) had adjusted bed/population ratios which were about the same as their unadjusted bed/population ratios. Therefore, these States also had relatively high bed/population ratios even after the data were adjusted to consider the large groups of those age 85 and older in these States. For the remainder of the chapter, analysis is based on unadjusted bed/population ratios because adjusted bed/population ratios were available only for 1980.

In summary, the Nation's nursing home bed supply can be characterized by the following features:

  --an estimated steady growth rate of 2.9 percent annually
     between 1976 and 1980, which was slower than the rate of
     growth compared to earlier years,

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*The formula for each State was 1980 licensed nursing home beds divided by [0.0145 (age 65-74) plus 0.068 (age 75-84) plus 0.2158 (age 85 and over)]. (NCHS, p. 28.)

Table 9

Adjusted and Unadjusted Numbers of Licensed Nursing Home Beds per 1,000 Elderly Age 65 and Older in 1980 a/

	Unadjusted	Adjusted		Unadjusted	Adjusted
Alabama	47	55	Montana	90	95
Alaska	45	55	Nebraska	91	89
Arkansas	64	73	Nevada	33	44
California	45	50	New Hampshire	61	65
Colorado			New Jersey	30	33
Connecticut	71	77	New Mexico	30	36
Delaware	64	73	New York	44	49
District of Columbia	26	30	North Carolina	31	37
Florida	22	26	North Dakota	78	83
Georgia	64	77	Ohio	61	68
Hawaii	43	51	Oklahoma	82	90
Idaho	48	56	Oregon	49	53
Illinois	69	76	Pennsylvania	51	58
Indiana	66	71	Rhode Island	69	74
Iowa	81	78	South Carolina	38	48
Kansas	89	90	South Dakota	82	82
Kentucky	47	90	Tennessee	51	59
Louisiana	60	71	Texas	76	87
Maine	69	72	Utah	51	58
Maryland	53	62	Vermont		
Massachusetts	64	66	Virginia	35	41
Michigan	47	52	Washington	62	68
Minnesota	87	86	West Virginia	23	26
Mississippi	52	59	Wisconsin	94	99
Missouri	62	66	Wyoming	64	74

a/U.S. adjusted and unadjusted = 54. Massachusetts and Pennsylvania include licensed intermediate care beds for the mentally retarded; Ohio includes rest home beds.

--tremendous variation in the supply of beds across States, ranging from a low of 22 beds per 1,000 residents age 65 and older to a high of 94,

--a reduced or unchanged bed/population ratio in almost half the States from 1976 to 1980,

--an increase in bed supply generally in those States where there were relatively fewer beds per 1,000 elderly persons $(r = -.31)$, and

--an increase in most States' bed/population ratios when the ratios were adjusted using national use rates for elderly age groups.

ASSESSING THE AVAILABILITY OF NURSING HOME BEDS ACROSS THE STATES

As shown above, our survey data identified extensive inter-State variation in the supply of nursing home beds. Whether this variation is related to the need for nursing home care across the States is not well understood. As discussed in chapter 2, direct measures of the current and potential need for nursing home care are not available. Although it is known that nursing home care is provided to some individuals who could appropriately be served at home or in other settings, it is not known how the differences in the States' supply of beds are related to the unnecessary use of nursing home services.

Given factors identified in chapter 2, four State-level variables thought to be related to nursing home need or use were compared to State bed/population ratios:

--proportion and growth of a State's population 65 and older,

--proportion of elderly within the population 65 and older,

--the percentage of elderly poor,

--climate.*

The availability of nursing home beds in relationship to these variables was assessed both cross-sectionally and longitudinally. Simple and partial correlations and multiple regression analyses using the Statistical Package for the Social Sciences were performed to determine the relative strength of relationships between the variables above and State bed/population ratios. The results of these analyses are presented below.**

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*Summary data for selected variables are in appendix IX.

**Although these factors were discussed as significant predictors of nursing home use in chapter 2, the analysis of the relation-

The relationship between bed supply and the size and growth of the elderly population

The proportion of a State's population that was elderly (age 65 and older) was examined for its relationship to State nursing home bed/population ratios. 5/ In 1980, 11.3 percent of the U.S. population was 65 and older; the elderly represented less than 9 percent of the population in seven States and more than 13 percent in another seven. No consistent or significant relationship was found between the relative size of a State's elderly population and nursing home beds per 1,000 residents age 65 and older.

However, we also analyzed the relationship between rates of bed growth and State elderly population growth (age 65 and over) between 1976 and 1979. This analysis showed that the supply of beds grew most in States with the fastest growing elderly population. Between 1976 and 1979, there was a positive association between bed growth and elderly population growth for the 44 States with available data.* The rate of nursing home bed supply appears to have grown in proportion to the growth in the State elderly population.

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ships between States' elderly poor populations and bed/population ratios and climate and bed/population ratios will not be discussed in the text because the results were not statistically significant. Few variables measuring the wealth or poverty of the elderly were available both longitudinally and at the State level. For our purposes, we used the percentage of elderly receiving Supplemental Security Income, expecting that more elderly poor (i.e., a higher percentage receiving SSI) would predict a larger bed population ratio. However, the inverse relationship was found. The association may have been distorted by the inclusion of persons in States providing a State supplemental payment. Although including these individuals helped to represent State elderly residents who were considered poor, their inclusion also contributed to inconsistency in defining SSI recipients across States. In terms of State climate, it was hypothesized that harsher climates would be associated with an increased likelihood of nursing home use, all else being equal. Although a Pearson correlation coefficient of .47 was found to be statistically significant at the .001 level of probability between climate and bed/population ratios, a stepwise multiple regression including climate indicated that climate differences were not significantly correlated with bed/population ratios after controlling for the size of the State's elderly population that was 85 and older. (Climate data are from the Department of Commerce, NOAA, State, Regional, and National Monthly and Seasonal Heating Degree Days Weighted by Population (July 1931-June 1976, (Washington, D.C.: March 1977).)

*The Pearson correlation coefficient was .70, which was statistically significant at the .001 level of probability.

The relationship between bed/population ratios and elderly age groups

Elderly population distributions and bed/population ratios are shown in table 10 and table 11 (on page 73). The distribution of elderly age groups by State is presented in table 10. Nationally, and in almost every State, the oldest among the elderly (age 85 and older) are growing fastest.* Between 1975 and 1979, this group grew at an average annual rate of 4.5 percent. The size of the population 85 and older is significant because its rate of institutionalization is about 15 times greater than the rate for those age 65 to 74. 6/

During the middle to late 1970's, the growth in the population age 85 and older was much faster than the growth in nursing home bed supply.** While bed supply grew at an estimated average annual rate of 2.9 percent, the 4.5 percent annual growth in the 85 and older population was higher.*** In 1975, there were about 1.8 million persons who were 85 and older, and in 1976 there were an estimated 1.2 million nursing beds. Four years later, the size of the population 85 and older had grown to 2.2 million while the number of nursing home beds (which are used by all age groups) had grown to 1.4 million. The data thus suggest that nursing home bed supply growth may not have kept pace with the increase in the population most likely to use nursing homes.

The number of elderly age 75 and older grew at an average annual rate of 2.7 percent between 1976 and 1979, while the population age 65 and older grew 2.4 percent between 1976 and 1979.**** A little less than two thirds of the Nation's elderly were between

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*1976-80 data for elderly 65 and older are in appendix X.

**The growth rate of the population age 85 and older is presented with qualification because the methodology used by the U.S. Bureau of the Census to collect information for this study did not use a sample large enough to insure its accuracy. (See Department of Commerce, Bureau of the Census, "Methodology for Experimental Estimates of the Population of Counties by Age and Sex: July 1, 1975," Current Population Reports, Special Studies, Series P-23, No. 103 (Washington, D.C.: May 1980), for a discussion of the methodology.

***This growth rate is based on a 5-year period for nursing home bed growth, which is slightly different from that of the growth rate for the population age 85 and older. The data for nursing home beds cover 1976-80, and the data for people 85 and older cover 1975-79.

****The growth rate of the population 85 and older is based on the 5-year period 1975-79 while the 65 and older and 75 and older growth rates are based on the 4-year period 1976-79.

Table 10

Percentage Distribution (1980) and Average Annual Growth Rates (Selected Years) of Elderly Age 65 and Older

| | 1980 distribution | | | Growth rate | | |
| | | | | 1976-79 | | 1975-79 |
	65-74	75-84	85+	65+	75+	85+
United States	61.0	30.2	8.8	2.4	2.7	4.5
Alabama	63.2	29.1	7.7	2.8	3.3	3.3
Alaska	66.7	25.0	8.3	3.6	0.0	0.0
Arkansas	61.5	30.1	8.3	2.6	3.2	4.3
California	60.9	30.0	9.0	3.0	3.0	4.9
Colorado	60.3	30.0	9.7	3.1	3.0	4.9
Connecticut	58.9	29.8	9.9	2.5	2.3	4.8
Delaware	62.7	28.8	8.5	3.1	1.6	5.7
District of Columbia	62.2	29.7	8.1	0.9	1.2	3.9
Florida	62.8	30.3	6.9	5.0	5.9	8.5
Georgia	64.0	28.2	7.5	3.3	3.3	4.4
Hawaii	64.5	27.6	7.9	5.3	7.7	5.7
Idaho	61.7	28.7	8.5	4.0	3.1	3.4
Illinois	60.3	30.5	9.1	1.3	1.7	3.9
Indiana	60.0	30.9	9.2	1.6	2.0	3.6
Iowa	55.5	33.1	11.6	1.1	1.2	3.1
Kansas	56.5	32.4	10.8	1.4	1.6	3.4
Kentucky	60.7	30.7	8.5	1.7	2.1	3.2
Louisiana	63.1	29.5	7.4	2.2	3.1	4.5
Maine	58.2	31.9	9.9	1.8	2.5	4.3
Maryland	62.4	28.5	8.3	2.8	3.3	5.3
Massachusetts	58.2	31.6	10.2	1.5	1.7	3.8
Michigan	61.1	30.0	9.0	2.1	2.4	4.9
Minnesota	56.3	32.7	11.0	1.7	2.1	5.0
Mississippi	62.3	29.8	8.3	2.1	2.8	4.9
Missouri	58.8	31.8	9.4	1.3	2.0	3.1

(Table 10 continued)

| | 1980 distribution | | | Growth rate | | |
| | | | | 1976-79 | | 1975-79 |
	65-74	75-84	85+	65+	75+	85+
Montana	61.2	28.2	10.6	2.5	1.6	3.0
Nebraska	55.3	33.0	11.7	1.2	1.5	3.6
Nevada	69.7	24.2	6.1	9.1	8.7	7.5
New Hampshire	60.2	31.1	9.7	2.5	2.8	3.0
New Jersey	61.7	29.9	8.4	2.3	2.3	5.1
New Mexico	64.7	27.6	7.8	5.1	5.9	6.5
New York	59.8	31.2	8.9	0.9	1.5	4.3
North Carolina	64.3	28.2	7.5	3.7	4.0	5.3
North Dakota	58.8	31.3	10.0	2.2	2.2	3.4
Ohio	60.5	30.3	9.2	1.6	1.7	3.9
Oklahoma	59.8	31.1	9.0	2.1	2.7	4.2
Oregon	61.1	29.7	9.2	3.3	3.1	5.0
Pennsylvania	61.7	29.8	8.5	2.0	2.1	3.9
Rhode Island	59.8	30.7	9.4	2.0	2.2	5.1
South Carolina	66.2	27.2	7.0	4.0	4.0	4.4
South Dakota	56.0	33.0	11.0	1.5	1.8	5.7
Tennessee	62.4	29.5	7.9	2.8	3.4	4.1
Texas	61.8	30.1	8.7	3.0	3.7	4.7
Utah	62.4	30.3	8.3	3.7	3.7	6.5
Vermont	53.4	31.0	10.3	1.9	3.1	4.7
Virginia	63.0	28.9	8.1	3.2	3.1	4.3
Washington	61.0	32.9	9.5	3.4	3.1	4.1
West Virginia	61.8	29.8	8.0	1.7	1.6	2.8
Wisconsin	58.5	31.6	9.9	2.0	2.5	4.6
Wyoming	67.6	29.7	8.1	1.9	-11.5	0

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Table 11

1980 Ranked Percentages of Elderly Age 85 and Older and State
Bed/Population Ratios per 1,000 Elderly Age 65 and Older

	% 85+	Ratio		% 85+	Ratio
United States	8.8	54			
Nebraska	11.7	91	Texas	.8.7	76
Iowa	11.6	81	Delaware	8.5	64
South Dakota	11.0	82	Idaho	8.5	48
Minnesota	11.0	87	Kentucky	8.5	47
Kansas	10.8	89	Pennsylvania	8.5	51
Montana	10.6	90	New Jersey	8.4	30
Vermont	10.3	52 a/	Alaska	8.3	45
Massachusetts	10.2	64	Arkansas	8.3	64
North Dakota	10.0	78	Maryland	8.3	53
Connecticut	9.9	71	Mississippi	8.3	52
Maine	9.9	69	Utah	8.3	51
Wisconsin	9.9	94	District of Columbia	8.1	26
Colorado	9.7	76 a/	Virginia	8.1	35
New Hampshire	9.7	61	Wyoming	8.1	64
Washington	9.5	62	West Virginia	8.0	23
Missouri	9.4	62	Hawaii	7.9	43
Rhode Island	9.4	69	Tennessee	7.9	51
Indiana	9.2	66	New Mexico	7.8	30
Ohio	9.2	61	Alabama	7.7	47
Oregon	9.2	49	Georgia	7.5	64
Illinois	9.1	69	North Carolina	7.5	31
California	9.0	45	Louisiana	7.4	60
Michigan	9.0	47	South Carolina	7.0	38
Oklahoma	9.0	82	Florida	6.9	22
New York	8.9	44	Nevada	6.1	33

a/Data are for 1979.

the ages of 65 and 74 in 1980, although this varied somewhat by State. Between 1976 and 1979, the elderly population grew fastest in warm weather States. Growth in the population age 65 and older was inversely related to the extent of cold weather.* A particularly interesting age distribution was evident in Florida, which had the highest percentage of the Nation's population age 65 and older (17.3 percent) but the Nation's second lowest percentage of all elderly who were age 85 and older (6.9 percent).

When bed supply was compared to a State's population age 85 and older (see table 11), a statistically significant relationship between beds per 1,000 age 65 and older and the percentage of a State's elderly population age 85 and older was found in 1980.** Statistically significant relationships, although less strong in 1976 compared to 1979, were also found when State bed supply was correlated with the percentage of State elderly age 75 and older. In 1976, the number of beds per 1,000 elderly was highly related to the proportion of elderly age 75 and older.*** This relationship remained significant in 1979, although the correlation coefficient was smaller.**** The difference in the strength of the relationships between 1976 and 1979 may indicate a change in the relationship between the population 75 and older and bed supply over the 4-year period.

ASSESSING THE AVAILABILITY OF BEDS
FOR HIGHLY DEPENDENT ELDERLY PERSONS

Another way of assessing the availability of State bed/population ratios is to examine what happens to specific elderly subgroups in States with different bed/population ratios. This analysis was conducted in the study described in chapter 2 that merged the 1977 Health Interview Survey with the 1977 NNHS to obtain a data base representing the total institutional and noninstitutional population. 7/ States were grouped by their bed/population ratios according to data from the 1976 MFI.***** Because the data were

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*The Pearson correlation coefficient was -.33, which was statistically significant at the .02 level of probability.

**It was not possible to test the association for other years because of unreliable 85 and older estimates. For 1980, the Pearson correlation coefficient was .77, which was statistically significant at the .001 level of probability.

***The Pearson correlation coefficient was .74, which was statistically significant at the .001 level of probability.

****The Pearson correlation coefficient was .46, which was statistically significant at the .001 level of probability.

*****Although the MFI included nursing home beds in personal care and domiciliary care homes in calculating bed/population ratios and our data did not, the rank order of the States was

Table 12

Percentage of Unmarried Elderly Age 75 and Older Who Are in Institutions and Dependent in Eating and Toileting Ranked by Number of Beds in the States per 1,000 Elderly Age 65 and Older a/

No. of beds in the States	% dependent
10 lowest	53.9
10 medium low	72.8
10 medium	73.7
10 medium high	88.9
10 highest	92.1

SOURCE: W. Weissert and W. Scanlon, Determinants of Institution-alization of the Aged (Washington, D.C.: Urban Insti-tute, November 1982), p. 15.

a/Persons have been classified according to the number of beds per 1,000 elderly residents in their State. The States have been ranked from lowest to highest with the category "lowest" contain-ing the first 10 States, "medium low" the next 10, etc.

not reliable for individual States, the analysis was done by groups of 10 States. An elderly group very likely to use nursing home care was compared across States to examine differences in nursing home use.

As shown in table 12, the proportion of a group very likely to use nursing home care--age 75 or older, unmarried, and depend-ent in toileting and eating--and actually in a nursing home varied in relation to the State bed supply. In the 9 lowest-bed States and the District of Columbia (with less than 44 beds per 1,000 residents age 65 and older), only 53.9 percent of this very dependent population was in nursing homes. These jurisdictions were

Arizona	Nevada
Delaware	New Jersey
District of Columbia	New Mexico
Florida	South Carolina
Mississippi	West Virginia

In the 10 highest-bed States (with more than 85 beds per 1,000 residents age 65 and older), almost all the people in this very dependent group (92.1 percent) were in nursing homes. The States in this category were

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similar in the two surveys. (The Spearman rank order correlation coefficient was .85, which was statistically significant at the .001 level of probability.)

Alaska	North Dakota
Colorado	South Dakota
Iowa	Texas
Minnesota	Vermont
Nebraska	Wisconsin

Apparently, in the highest-bed States there was a nursing home bed supply sufficient to permit almost all persons with these characteristics to enter nursing homes. In the lowest-bed States this was not the case; the remaining 46.1 percent of this dependent population was not in nursing homes or any other institution. 8/ This may indicate some overuse of institutional care in the highest-bed States (if some of these individuals could have been cared for in other settings) or an inadequate supply of services for these populations in the lowest-bed States or, most likely, a combination of both.

In summary, in assessing the relationship between State bed supply and factors associated with nursing home use, the following findings were identified:

--The number of nursing home beds increased most in States with the fastest growing population 65 and older (r = .70), suggesting that bed growth was, on the average, a response to the rate of State elderly population growth.

--The growth in the population 85 and older, the biggest users of nursing home care, increased at a higher rate than bed supply in the middle to late 1970's (4.5 versus an estimated 2.9 percent annually).

--The population 65 and older grew most in States with warmer climates (r = .33).

--A large percentage of the population 85 and older was related to large State bed/population ratios (r = .77).

--More elderly persons defined as very likely to use nursing home care were in nursing homes in States with high bed/ population ratios than in States with low bed/population ratios (92 versus 54 percent).

THE RELATIONSHIP BETWEEN NURSING HOME
BED SUPPLY AND MEDICAID EXPENDITURES

While it was difficult to identify strong relationships between factors characterizing nursing home use and State bed supply, bed supply was clearly identified as being related to State spending for Medicaid nursing home care, as shown in table 13. The strength of the relationship between bed supply and expenditures was assessed by comparing the variation in State spending for nursing home care with the variation in State bed/population ratios. The expenditure variable, Medicaid nursing home (SNF and ICF)

Table 13

The Relationship Between State Medicaid Spending for Nursing Home Care for Each Elderly Resident and State Nursing Home Bed/Population Ratios 1976-80 with the Correlation Illustrated for 1980 a/

	Correlation coefficient		Significance
1976	+.54	(44 States)	p<.001
1977	+.54	(48 States)	p<.001
1978	+.56	(49 States)	p<.001
1979	+.61	(49 States)	p<.001
1980	+.58	(48 States)	p<.001

		$83 - $309		$310 - $651	
Beds per 1,000 age 65 and older	22 to 60	California District of Columbia Florida Idaho Kentucky Maryland Nevada New Jersey	New Mexico North Carolina Oregon Pennsylvania South Carolina Tennessee Utah Virginia West Virginia	Alabama Alaska a/ Hawaii Louisiana Michigan Mississippi New York Vermont b/	
	61 to 94	Delaware Illinois Iowa Kansas Nebraska Missouri Ohio Wyoming		Arkansas Colorado b/ Connecticut Georgia Indiana Maine Massachusetts Minnesota Montana	New Hampshire North Dakota Oklahoma Rhode Island South Dakota Texas Washington Wisconsin

SOURCE: HCFA, Medicaid State Tables (Washington, D.C.: 1976), and unpublished HCFA tables for 1977-80.

a/Expenditures are adjusted for State cost-of-living differences. Expenditures for intermediate care facilities for the mentally retarded could not be disaggregated for the following States in the years indicated: Ala., Ark., Calif. (1976-79); Conn., Fla. (1976); Hawaii (1977-79); Ill., Maine, Md. (1976-80); Mo. (1976); Nev. (1976-77); N.H. (1976-78); N.J. (1977); Wash. (1976); W.Va. (1979). HCFA substituted 1979 data for 1980 because Alaska did not report 1980 data.
b/1979 data are substituted for missing 1980 nursing home bed data.

expenditures for each State elderly resident adjusted for State nursing home wage differences, was compared to State nursing home bed/population ratios for 1976-80. The table indicates the strong positive relationship found in all 5 years: higher spending was consistently related to higher bed/population ratios.

For illustrative purposes, table 13 also presents a matrix of the States by their bed/population ratios and spending for each elderly person. The two largest clusters of States were (1) those that spent a relatively high amount of Medicaid nursing home dollars for each elderly person and had high bed/population ratios and (2) those that spent relatively less for each elderly person and had low bed/population ratios.

STATE ACTIONS TO CONTROL
BED SUPPLY DIRECTLY

The growth in Medicaid nursing home expenditures and the reduction in the Federal contribution to State Medicaid budgets have led to increasing concern among the States about how to contain Medicaid costs. In a recent survey of State Medicaid directors, several cited the problem of Medicaid's institutional bias in providing nursing home care, including the lack of control over nursing home bed supply, as one of the most difficult barriers to containing State Medicaid costs. The survey concluded that nursing home bed growth is significant because of a "linear relationship between bed supply and bed use: it seems that if beds are available, they will be used." 9/

One of the survey's recommendations for the reform of major problems in the Medicaid nursing home program was to give States greater authority to limit the number of current nursing home beds supported by Medicaid expenditures. 10/ Similarly, in a recent study by the Kentucky Legislative Research Commission on controlling Medicaid long-term care costs, implementing restrictive policies on the growth of new nursing home bed supply led a list of six cost containment recommendations. 11/

One way States have directly controlled bed supply (and hence expenditures) is through certificate of need (CON) review. Several States established CON laws as a way of controlling unnecessary spending of health resources before the passage of the National Health Planning and Resources Development Act in 1974 (Public Law 93-641), but this act formalized the goal as a national priority.*

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*The National Health Planning and Resources Development Act of 1974 expired at the end of fiscal year 1982. However, the Congress passed a continuing appropriation of $64.9 million for the health planning program, which expired September 30, 1983. (S. Simler, "Schweiker Irks Planning's Allies, Foes," Modern Healthcare, Vol. 13, No. 2, February 1983, p. 136.)

The law requires States to review proposals for construction or expansion of health facilities (including nursing homes) and to certify that they are needed before approving their construction. Failure to obtain State approval results in facilities' ineligibility for a State license.

The goal of this process is to control health care expenditures by preventing the increase in costs associated with oversupply and the unnecessary use of health resources that might be created by their availability. Although high interest rates and the uncertainty of Medicaid policies may have affected nursing home expansion in the recent past, limited research suggests that some States have also used CON laws to effectively limit nursing home bed supply. 12/ In these States, the health planning process has worked closely with the Medicaid program so that Medicaid nursing home expenditures could be controlled more effectively. However, studies have not adequately addressed whether this has reduced unnecessary care or if instead individuals in need of care have been prevented from obtaining it because of limitations in supply.

One study of a limited number of States found that several used the certificate of need process to constrain the growth of nursing home beds in the 1970's. For example, Georgia revised its statewide bed/population target downward from 70 to 55 beds per 1,000 elderly residents with the primary objective of decreasing its institutional long-term care costs. The State of Washington used its CON review to decrease its projected bed needs by 10 percent. It justified this change by the assumption that a corresponding percentage of current residents could have remained in the community if they had received home health care. 13/

Since the 1970's, many States have acted to control Medicaid nursing home expenditures with their CON authority. Six States (Kentucky, Minnesota, Mississippi, North Carolina, Virginia, and Wisconsin) have imposed moratoriums on issuing CON's for the construction of new beds. In 1980, these States varied in bed/population ratios from a high of 94 in Wisconsin to a low of 31 in North Carolina. In addition, South Carolina, with 38 beds per 1,000 elderly residents, added language to Medicaid appropriation legislation for fiscal year 1982 and 1983 stating that Medicaid funds cannot be used to pay for patients in newly constructed nursing home beds. Pennsylvania has recently adopted a policy which excludes reimbursement for depreciation and interest for any nursing home that receives a CON after August 1982. 14/

In 1980 and 1981, Kentucky and Mississippi attempted to limit the existing number of beds that were eligible for Medicaid reimbursement. 15/ Their proposed cap would have immediately reduced the number of available beds to Medicaid patients by 15 to 20 percent. This policy has been abandoned, however, because it was found to be in violation of Federal Medicaid law concerning provider agreements with certified facilities, it prevented medical assistance from being furnished with reasonable promptness, and it

arbitrarily denied coverage to persons on the basis of where they
lived in a State. 16/

SUMMARY

    Nursing home bed supply, controlled largely by the States, is
important because it helps determine (1) the difficulty in gaining
admission to a nursing home and (2) the level of State and Federal
expenditures for nursing home care. However, national systems
which report State data on bed supply are inconsistent and unreli-
able. In our survey of 49 States and the District of Columbia in
which we collected data on nursing home beds from 1976 to 1980,
we found that States have difficulty reporting these data.

    Our survey data indicate that nursing home bed supply
increased more slowly (an estimated 2.9 percent) between 1976 and
1980 when compared to an average annual growth rate of 8.1 percent
between 1963 and 1973 and that bed/population ratios ranged from a
low of 22 to a high of 94 beds per 1,000 elderly residents across
the States in 1980. Although half the States had increases in
their bed/population ratios from 1976 to 1980, the number of nurs-
ing home beds remained at 54 beds per 1,000 elderly at the national
level. This indicates that overall nursing home bed supply grew at
about the same rate as the elderly population (age 65 and older).
However, during this time period, bed supply grew more slowly than
the population age 85 and older, who are proportionately the heavi-
est users of nursing home care among the elderly.

    The slowing rate of nursing home bed growth and the wide
variation in bed/population ratios raise questions as to how the
elderly residents in each State are affected by these factors. It
is not possible to determine the number of nursing home beds that
is required by the aged population, because need is so difficult to
define and measure and because it is not known how the differences
in the States' supply of beds are related to the unnecessary use of
nursing home services. Given factors identified in chapter 2, four
State-level variables thought to be related to nursing home need or
use were compared to State bed/population ratios.

    We found a statistically significant relationship between the
growth of beds and the 65 and older population. In this regard,
nursing home bed growth appears to have responded to nursing home
"need" as defined by the growth of the population 65 and older.
We also found that bed/population ratios were highest in States
with the largest populations 85 and older. Other variables, such
as elderly persons' income levels and the availability of informal
support, probably also affect the need or use of nursing home
care. However, adequate measures of these variables were not
available for analysis.

    The dependency characteristics of States' populations in
relation to their bed/population ratios were also examined. Al-
though 54 percent of the members of a group very likely to use
nursing home care were in nursing home beds in areas with the

lowest bed/population ratios--9 States and the District of Columbia --92 percent of persons with these same characteristics were in nursing homes in the 10 States with the highest bed/population ratios. This may indicate some overuse of institutional care in the highest-bed States or an inadequate supply of services for these populations in the lowest-bed States or, most likely, a combination of both.

Because of bed supply's relationship to nursing home expenditures, some States have tried to control their Medicaid expenditures by controlling new bed construction. Although high interest rates and the uncertainty of Medicaid policies may have affected nursing home expansion recently, States have also used their authority to review certificates of need to limit bed supply as a way of controlling expenditures. For example, six States that varied in their bed/population ratios from a high of 94 to a low of 31 in 1980 recently imposed moratoriums on the construction of new beds. The research has not identified whether these and other actions reduce unnecessary care or make it more difficult for people who need these services to obtain them.

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11/Kentucky Legislative Research Commission, The Medical Assistance Program: A Question of Needs and Resources, Frankfort, Ky., August 1981, p. 104.

12/J. Feder and W. Scanlon, "Regulating the Bed Supply in Nursing Homes," Millbank Memorial Fund Quarterly, Health and Society, Vol. 58, No. 1, 1980, pp. 54-88; Dunlop, p. 98.

13/Feder and Scanlon, pp. 65-67.

14/GAO, Preliminary Findings on Patient Characteristics and State Medicaid Expenditures for Nursing Home Care, GAO/IPE-82-4, Washington, D.C., July 15, 1982, pp. 12-13, and Intergovernmental Health Policy Project (George Washington University), Recent and Proposed Changes in State Medicaid Programs: A Fifty State Survey, Washington, D.C., November 1982, p. 17.

15/GAO, pp. 12-13.

16/A May 29, 1981, letter from the Administrator of HCFA to the Director of the Mississippi Medicaid Commission indicated that this procedure conflicted with statutory and regulatory requirements: 42 C.F.R. sec. 442.12(d), Social Security Act, P.L. 89-97, sec. 1902 (a)(8), and 42 C.F.R. sec. 440.230. (See National Senior Citizens Law Center, The Nursing Home Law Letter, No. 64., October 1982, pp. 4-5.)

CHAPTER 5

MEDICAID REIMBURSEMENT POLICY

FOR NURSING HOME CARE

ACROSS THE STATES

Both bed supply and Medicaid expenditures are affected by State reimbursement policies for nursing home care. Reimbursement policies can have an impact on access to nursing home care because a low payment rate may result in difficulty in placing costly heavy care Medicaid patients. These policies also help to determine the quality of nursing home care, because providing a specified quality of care presumes a certain level of costs. The objectives of assuring access and providing quality care for Medicaid patients are, however, often in conflict with a third major goal of reimbursement policy--controlling costs.

This chapter reviews the conflicting goals of Medicaid reimbursement policy and the roles of the Federal Government and the States in meeting these goals. State reimbursement systems, which are quite diverse, are discussed in terms of their major characteristics, including the wide range of reimbursement rates they produce. One type of reimbursement policy, patient-related reimbursement, is described because of its potential for making nursing home care accessible to heavy care Medicaid patients. States' actions to control their expenditures through nursing home reimbursement policy are reviewed.

FEDERAL POLICY FOR REIMBURSING
MEDICAID NURSING HOME CARE

Historically, Medicaid reimbursement policy has been expected to

--control public expenditures for Medicaid,

--insure adequate provider participation and access to care by recipients,

--encourage appropriate and high quality care,

--deliver services efficiently (i.e., provide the maximum appropriate service per dollar),

--be administratively simple to implement, and

--minimize the potential for fraud and abuse. 1/

The history and current status of Medicaid reimbursement policy indicate that it has been difficult to achieve these often conflicting objectives.

Before the passage of Medicare and Medicaid in 1965, States and counties followed their own methods of nursing home reimbursement; most paid a flat rate to all facilities or to groups of facilities. 2/ These rates were generally determined by State budget constraints and were not necessarily linked to the expected costs of the care provided. When the Medicaid program was enacted, it did not establish a specified method of reimbursement for nursing homes. Some States subsequently adopted Medicare's system of reimbursement for SNF care, which required the reimbursement of the full amount of allowable costs (defined by HHS) incurred for SNF care. Other States used Medicare's allowable costs to define their Medicaid costs but set their own limits on the maximum amount which could be reimbursed. 3/

Section 249 of the 1972 Social Security Amendments

In 1972, a principle of cost-based reimbursement was established for Medicaid nursing home care. Medicaid reimbursement up to this time, often flat rate payments, had been linked to scandals involving substandard care and high profits to operators. However, at the same time, experience under Medicare's reimbursement of full allowable costs had resulted in rapidly increasing costs. In order to promote flexibility in State programs, section 249 of the 1972 Social Security Amendments (Public Law 92-603) established the principle of "reasonable cost-related reimbursement" for nursing homes, with the objective of providing low cost, high quality care. 4/

The law required that (1) by July 1, 1976, all States reimburse Medicaid SNF and ICF care on a reasonable cost-related basis and (2) methods for reimbursement be approved by HHS.* Reasonable

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*For a number of reasons (e.g., difficulty in interpreting the legislation and fear of additional costs), publication of the regulations was greatly delayed. Although the new law was to take effect July 1, 1976, HHS postponed its effective date until January 1, 1978, because the regulations were not published until July 1976. Nursing homes in five States (Ala., Fla., Ill., Nebr., and Wis.) challenged this delay in court, their motive being the expected higher payments under the reasonable cost-related system. In July 1977, the U.S. district court in Alabama ruled that the cap on that State's rate (the test case) was invalid because it was not reasonably related to costs and HHS had illegally extended the effective date of the law. The State submitted a new plan under section 249, which was approved by HHS. In March 1978, the Alabama Nursing Home Association again charged that the rate was not reasonably related to costs, but the U.S. district court found the State and HHS in compliance. However, this decision was appealed and, in May 1980, the court of appeals reversed the lower court's decision, ruling that HHS must define the regulations about basing rates on the costs of economic and efficient nursing homes and sending the plan back to HHS for review again. Before

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cost-related rates were to reimburse for the costs incurred by facilities that were economically and efficiently operated. States were required to define allowable costs for reimbursement purposes, and facilities were required to submit annual cost reports to the States.

Section 962 of the 1980 Omnibus
Reconciliation Act

Pressure to amend section 249 was felt in the years following its passage in 1972. State implementation was often perceived as resulting in higher reimbursement rates than actually required by the law. One reason for this may have been that "applying the Medicare reasonable cost reimbursement principles to LTC (long-term care) facility reimbursement" was not entirely satisfactory "since these principles are inherently inflationary and contain no incentives for efficient performance."* 5/ The desire to control State Medicaid expenditures, extensive litigation resulting from the implementation of section 249, and the uncertainty raised by HHS's delay in issuing the regulations all contributed to pressures for amending this legislation.

The Omnibus Reconciliation Act of 1980 (Public Law 96-499, section 962) changed the Medicaid law to provide that States pay facilities rates

"which are reasonable and adequate to meet the costs which must be incurred by efficiently and economically operated facilities in order to provide care in conformity with applicable State and Federal laws, regulations, and quality and safety standards."** 6/

HHS had an opportunity to define the cost of an economic and efficient nursing home, section 249 was revised by the Congress. (See S. L. Weiner and S. S. Lehrer, "The Afterthought Industry: Developing Reimbursement Policy for Nursing Homes, Revised" (Waltham, Mass.: University Health Policy Consortium, May 1981), pp. 15-20, and GAO, Impediments to State Cost Saving Initiatives Under Medicaid, GAO/HRD-81-121 (Washington, D.C.: July 29, 1981), pp. 22-23.)

*Medicare cost-based retrospective reimbursement is thought to be inflationary because all allowable costs are reimbursed even though they are subject to limitations. Because of these problems, the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248) required that HHS submit to the Congress proposals for prospective hospital and SNF reimbursement for Medicare.

**This phrase was used in the regulations that implemented section 249; it was repeated in section 902 of the statute but still without a definition for "efficiently and economically operated facilities."

Rather than reviewing and approving a State's methods and standards for rate setting (as were done under section 249), HHS now only has to receive an assurance from the State that the rates are adequate.* In addition, States are now given greater flexibility in adjusting their rates because the regulations specify that new assurances need be submitted to HCFA only when States want to "significantly" revise their methods for determining rates, although what constitutes a significant change has not been defined. 7/ The results of a 1981 survey of State Medicaid directors (referred to in chapter 4) found that 16 of the responding 37 States named Federal nursing home reimbursement policy as one of the greatest barriers to efficient Medicaid operations, and speedy implementation of section 962 was seen as highly desirable. 8/ Regulations implementing this section were published by HHS in the Federal Register on September 30, 1981.

In summary, section 962 gives the States greater flexibility in adjusting their rates but may make the objectives of assuring access and providing quality care more difficult to achieve if States make extensive use of this increased flexibility for the purpose of cost containment. Because the States need report only significant changes to reimbursement systems to HCFA, less information may be available to monitor these changes at the national level.

STATE REIMBURSEMENT SYSTEMS ARE
CHARACTERIZED BY THEIR DIVERSITY

Although States have been required to adhere to Federal statutes and regulations in their reimbursement policies, they have had a great deal of flexibility in determining how to pay for nursing home care. As a result, State systems can be characterized by the diversity of their approaches for achieving the conflicting objectives of cost containment, quality, and access. Two broadly categorized payment systems--uniform rates and facility-specific rates--have emerged over time, and one or the other is currently in place in each State. In uniform rate systems, a State pays the same rate to all facilities or to groups of similar facilities. 9/ In facility-specific rate systems, reimbursement is based at least partially on the actual costs of individual facilities. However, as discussed below, most States with facility-specific rate systems establish maximum reimbursement rates. If a facility's costs exceed the maximum reimbursement rate allowed by the State, it receives only the maximum rate.

Facility-specific rates can be paid either retrospectively or prospectively. In retrospective systems, an interim rate is estimated and paid to facilities during the year; an annual cost settlement at the end of the year reconciles the difference between

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*States are still required to submit plans describing their methods and standards for rate setting.

actual allowable costs and the interim rate. In prospective systems, a rate is determined, before the time it becomes effective, on the basis of the historical costs of an individual facility, which are adjusted for inflation and usually limited by maximum rates. Uniform rates are always determined prospectively.

As mentioned above, to provide a stronger cost savings incentive, almost every State limits its facility-specific rates to a ceiling or maximum rate which it will pay. This process involves profiling facilities by their costs, usually in groups the State recognizes as sharing similar cost characteristics, to establish a maximum rate. Facilities with costs above this maximum are not reimbursed the difference. For example, an individual facility's reimbursable costs could be limited to the costs associated with the 80th percentile of facilities in its class or group of facilities. Or an individual facility's costs might be subject to a ceiling equal to 110 percent above the median costs of all facilities within a class. The ceiling can be established for total facility costs or individual cost centers.*

Conceptually, the two ends of the reimbursement system continuum are represented by uniform rates and retrospective facility-specific cost-based rates, but most State systems fall somewhere in the middle. The following sections present information on how the States' systems vary.

Characteristics of State nursing home reimbursement systems

As part of our State survey, data on State reimbursement systems were collected from both HCFA and the States. For verification, these data were compared to similar data collected by the American Health Care Association and other sources. 10/ Although attempts were made to analyze several components of each State's system, missing data and the wide diversity of the components precluded a systematic examination of the characteristics of the different systems. The information presented here, however, illustrates the diversity and complexity of the systems the States use.

Based on our survey results, figures 7 and 8 on the next two pages present the States with prospective and retrospective payment systems by the type of reimbursement ceiling (if any) and by the characteristics used to group facilities for the purpose of relating rates to costs (known as "peer grouping").

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*A cost center represents a grouping of related nursing home expenses. For example, States may group allowable costs into labor and non-labor cost centers or they may establish several cost centers (e.g., patient care, dietary, administration and operations, and property cost centers).

Figure 7
Prospective Payment States by Peer Groupings
and Type of Ceiling, 1980 a/

Type of ceiling	Individual facility-based	Peer group by level of care: skilled nursing and intermediate care facilities	Peer group by level of care and other facility characteristics
No ceiling for facility costs	District of Columbia North Dakota		
Ceiling for overall costs	Colorado Delaware b/ New York Wyoming	Alabama Arkansas Florida Iowa (ICF) Kentucky Tennessee (ICF)	Indiana Michigan Minnesota Mississippi New Hampshire (ICF)
Ceilings for each cost center	Washington	Connecticut New Jersey North Carolina Utah Wisconsin	Georgia South Carolina Virginia
Overall ceiling and by cost center		Kansas Rhode Island	South Dakota
Uniform rate		Louisiana Oklahoma Texas	California

a / Illinois, Ohio, and West Virginia excluded because these States' reimbursement methods recognize individual patient care costs and do not fit the categories presented here. Nevada excluded because it has both prospective and retrospective payment characteristics.

b / Grouped by State-owned and non-State-owned.

The District of Columbia and 28 States set prospective, facility-specific payment rates as of August 1980.* Four States (California, Louisiana, Oklahoma, and Texas) set uniform prospectives rates.** Sixteen States set their rates restrospectively.***

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*Changes since August 1980 are discussed below.

**California makes a retroactive adjustment to its uniform rate on the basis of an annual audit of a sample of nursing homes.

***Iowa, New Hampshire, and Tennessee are counted twice, once as prospective rate setting for ICF's and once as retrospective rate setting for SNF's.

Figure 8

Retrospective Payment States by Peer Groupings and Type of Ceiling, 1980 a/

Type of ceiling	Individual facility-based	Peer group by level of care: skilled nursing and intermediate care facilities	Peer group by level of care and other facility characteristics
No ceiling for facility costs	Alaska Hawaii Vermont	Iowa (SNF)	
Ceiling for overall costs	Maryland Montana Maine	Tennessee (SNF) Missouri New Mexico	Pennsylvania New Hampshire (SNF)
Ceilings for each cost center		Massachusetts Oregon	Idaho Nebraska
Overall ceiling and by cost center			

a/ Illinois, Ohio, and West Virginia excluded because these States' reimbursement methods recognize individual patient care costs and do not fit the categories presented here. Nevada excluded because it has both prospective and retrospective payment characteristics.

The four remaining States reimbursed facilities in different ways. Ohio and West Virginia reimbursed some cost centers retrospectively (those related to patient care) and paid the rest prospectively. Illinois set prospective rates in general but paid uniform rates on the basis of points ($1.00 a point) developed from patient assessments. Nevada paid four of its six cost centers retrospectively (employment benefits, food, health care, and property) and the two others prospectively (administration and housekeeping).

Reimbursement by peer groupings

In grouping facilities by specific characteristics, States explicitly recognize cost differences among facilities for which they are willing to differentiate reimbursement. For example, most States group facilities by their level of care designation on the assumption that this shared characteristic produces similar costs. Some States use additional characteristics, such as the number of beds in a facility and location, as a way of linking rates to costs. The section below discusses characteristics used to group and reimburse facilities, one of the few areas of Medicaid reimbursement policy where empirical research has been conducted.

Studies have found that both SNF level of care and Medicare participation are associated with higher facility costs. 11/ In 1980, level of care was the most frequently used factor to differentiate reimbursement rates.* The magnitude of this rate difference, however, varied widely by State, perhaps because of differences in State definitions of SNF and ICF care. Most States (36) grouped facilities by at least two levels of care, and another 13 States implicitly recognized facility level of care certification, because rates were based on each individual facility's historical costs. Wisconsin and Rhode Island grouped facilities by the most levels of care (5), and Utah grouped facilities by the proportion of SNF certified beds, recognizing higher costs when there was a larger proportion of SNF-level patients.**

Besides level of care, States used other characteristics to differentiate reimbursement rates. Consistently, cost differences have been found by facility ownership type. 12/ For example, the 1977 National Nursing Home Survey (NNHS) found average daily costs to be $22.06 for proprietary nursing homes, $27.56 for nonprofit homes, and $29.54 for government-owned nursing homes. 13/ However, because the reasons for these cost differences are unclear, studies have not recommended that facilities be grouped by ownership. 14/ In 1980, only Minnesota and Delaware considered ownership as a basis for different rates. Minnesota recognized a difference in proprietary and nonprofit facility costs, and Delaware identified the higher costs of government-owned facilities in its reimbursement system.***

No State currently considers chain ownership in setting rates.**** Research has been limited and no significant relationship has been found between chain ownership and operating costs. 15/ However, HHS officials believe that chains have fared particularly well in uniform rate States such as California and Texas. In 1981, California and Texas had the highest concentra-

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*This discussion excludes the ICF-MR level of care that many States use in grouping facility costs.

**Rhode Island used SNF, SNF/ICF, ICF I, ICF II, and ICF I/ICF II levels of care. Wisconsin used SNF and ICF I-ICF IV but is currently phasing out ICF III and ICF IV.

***Before 1980, Missouri grouped proprietary, nonprofit, and government-owned facilities separately.

****According to NCHS, chain-owned facilities are defined as "members of a group of facilities operating under one general authority or general ownership." (HHS, NCHS, "Utilization Patterns and Financial Characteristics of Nursing Homes in the United States: 1977 National Nursing Home Survey," Vital and Health Statistics, Series 13, No. 53 (Hyattsville, Md.: August 1981), p. 7.)

tion of beds owned by investor chains. 16/ Limited research on
facility costs has also indicated that hospital-based nursing
homes have higher costs than "free-standing" facilities. 17/ In
1980, eight States recognized these higher costs and paid hospital-
based nursing homes commensurately higher reimbursement rates.*

Several studies have found differences in wage rates and other
input prices across intra-State regions of individual States. 18/
In 1980, six States paid higher rates to facilities in urban areas
to encourage bed supply where there were generally higher concen-
trations of elderly but also less incentive to invest in nursing
homes.** Also, six States used the number of beds in each facility
as a basis for peer grouping in 1980, even though research has not
generally shown economies of scale to be a significant factor in
facility costs.*** 19/

Reimbursement rates vary greatly
across States

The variety of reimbursement systems described above produces
very different reimbursement rates. However, the link between a
broadly defined type of reimbursement system and the level of pay-
ment it produces is a tenuous one. 20/ As one study concluded,
"Since States have always cared foremost about the absolute payment
rate, they can keep tinkering with the system until it produces the
outcome they prefer." 21/ Some factors that affect the actual rate
include the cap or ceiling that is used and what it is tied to, the
inflation allowance, the method of calculating an efficiency incen-
tive payment or return on equity, and the basis and method for de-
preciating capital expenses.

Analysis of how these characteristics and many other compo-
nents of State reimbursement systems affect the actual rate is not
available. One study, currently under way, is examining the recent
history of 10 States' reimbursement systems in relation to costs
and reimbursement rates. Results will not be available until
1984. 22/

The Medicaid reimbursement rate data presented below were
collected as part of our State survey. The data were collected

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*Calif., Ga., Idaho, Mich., Miss., Nebr., S.Dak., and Va.

**Calif., Ill., Ind., Minn., Nebr., and Pa. New York's 1980 rate
formula was based on 1978 historical costs and included geo-
graphic location. Washington included geographic location in
the regression equation for property costs. Florida groups
facilities by county in determining costs.

***Calif., Ga., N.H., S.C., S.Dak., and W.Va. New York's 1980 rate
formula was based on 1978 historical costs and included the num-
ber of beds in each facility.

for each year from 1976 through 1980 but were reported for different times during each year; there may be more or less than 12 months between reported rates. In addition, some States excluded fixed or property costs from the rates for some types of facilities or averaged rates for more than one level of care.

Although we attempted to collect a statewide average reimbursement rate, many States were able to report only a maximum or ceiling rate for each level of care. As a result, three types of Medicaid rates were collected: a statewide average Medicaid rate for each level of care, the maximum Medicaid rate for each level of care, and a uniform rate paid to facilities providing the same level of care in the four States that paid uniform rates. It is unknown to what extent the statewide average rate differed from the maximum rate for the same type of care in the same State. However, because a maximum State rate probably does not represent an average State rate, it is not discussed further.

State reimbursement rates for 1980, the most recent year for which rate data were collected, are presented in table 14.* These rates were reported at some point during 1980. Twenty-eight States and the District of Columbia reported an average rate, 17 States reported a maximum rate, and 4 States reported their uniform rates for that year.

Statewide average SNF rates ranged from the high of $69.87 a day in the District of Columbia to the low of $23.33 in South Dakota. Statewide average ICF rates (considering only non-ICF-MR facilities) ranged from the high of $54.94 a day in the District of Columbia to the low of $20.54 in Kansas.** Six States reported a combination SNF/ICF average rate. These ranged from the high of $35.03 a day in South Carolina to the low of $24.29 a day in Maryland.

For the four States that reported uniform rates, SNF rates varied between the high of $36.23 a day in California and the low of $26.00 a day in Oklahoma. These two States had the highest and lowest ICF rates as well ($29.27 and $22.50, respectively). Almost every State set at least two different payment rates by level of care in 1980. Historically, however, most States have spent the greater proportion of their nursing home expenditures on lower level ICF care.***

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*See appendix XI for reimbursement rates for 1976-79.

**Alaska's ICF rate was the highest average ICF rate reported: $93.70 a day. However, because Alaska officials did not report SNF rate data, it is excluded from the discussion of ranges.

***See appendix XII for percentages of State nursing home expenditures the SNF and ICF care in fiscal years 1976-79.

Table 14

Selected Statewide Medicaid Nursing Home Daily Rates for 1980 a/

	SNF	High ICF a/	Low ICF a/	Dual b/	All c/	Other
Average						
Alaska		$93.70				
Colorado					$25.83	
Connecticut	$37.21	25.34				
District of Columbia	69.87	54.94				
Georgia d/	29.88	24.19		$27.90		$35.85 e/
Hawaii	56.30	42.52				
Idaho		20.75		27.88	29.59	37.47 e/
Illinois d/	29.10	21.87			23.68	
Indiana	35.20	26.85				
Kansas	26.69	20.54				
Maine	46.56	32.94				
Maryland				24.29		
Massachusetts d/	44.61	30.13				
Minnesota d/	38.24	31.32	$21.94			
Missouri d/		26.44		31.65		
Montana					33.38	
Nevada d/	41.00	36.38				
New Hampshire	42.00	35.00				
New Jersey	42.57	39.72	31.64			
New York	62.17	38.80				
North Dakota	30.28	22.74				
South Carolina				35.03		
South Dakota	23.33	21.43				
Utah	35.40	31.35				
Vermont d/	41.95	32.45				
Virginia	39.33	31.11				
Washington				30.24		
West Virginia	33.79	27.83				
Wisconsin	36.36	30.95	30.80			22.34 a/
Maximum						
Alabama	29.33			26.78		
Arkansas d/	30.01	25.57	22.85			

(Table 14 continued)

	SNF	High ICF a/	Low ICF a/	Dual b/	All c/	Other
(Maximum)						
Delaware						f/
Florida	$33.82	$31.76	$26.53			
Iowa		24.05				
Kentucky	45.00	27.00				
Michigan g/	30.95	29.95				
Mississippi	28.59	24.48		$27.30		33.76 e/
Nebraska h/	28.40	20.13				24.01 a/
New Mexico	60.86	32.16				
North Carolina	41.78	29.22				
Ohio	37.08	28.82				
Oregon	34.78	28.54				
Pennsylvania d/	33.15	28.49				
Rhode Island	42.85	29.47	23.71	40.85		33.47 a/
Tennessee	40.50	27.40				
Wyoming				33.13		
Uniform						
California	36.23	29.27				84.06 e/
Louisiana	31.85	26.62	21.20			
Oklahoma	26.00	22.50				
Texas	30.86	26.06	22.90		23.96	

a/Some States reported two ICF rates, a higher and a lower. "Other" ICF rates
  reported were a third rate (R.I. and Wisc.) and a metropolitan rate (Nebr.).
b/Rates combining SNF and ICF care.
c/State-reported averages of all facility rates.
d/Rates are an average of more than one level of care or more than one peer group or
  both in Ark., Ga., Minn., Mo., Nev., and Pa. Also, rates for Pa. are for operating
  costs only; rates are averages excluding facilities that provide more than one level
  of care in Mass., estimated averages in Ill., and averages from HCFA data for Vt.
e/A rate paid to hospital-based facilities.
f/Two rates: $68.03 to government-owned and $40.63 to proprietary facilities.
g/Rates exclude an allowance on plant costs for new facilities.
h/Operating costs only.

Our limited data suggest that reimbursement rates grew relatively rapidly during the late 1970's. Between 1976 and 1980, the median increase in per diem reimbursement rates was 12.7 percent a year for the areas--18 States and the District of Columbia --that reported average Medicaid rates in 1976 and 1980. The 12.7 percent median annual rate of growth represents the growth of the reimbursement rates for the level of care most frequently paid for in each State (i.e., the rate that represents the largest percentage of total Medicaid patient days in each State).

QUALITY IMPLICATIONS OF UNIFORM RATE AND FACILITY-SPECIFIC REIMBURSEMENT SYSTEMS

This section discusses implications for the quality of patient care in uniform rate and facility-specific reimbursement systems. Because neither type of reimbursement system pays according to each patient's needs, there are no direct incentives to provide the care that is most appropriate for each individual.

Under uniform rate systems, increased profits can be achieved by savings from either increased efficiencies or cutbacks in services or patient care. 23/ Because every nursing home or nursing home in a class receives the same payment for every patient, Medicaid revenues are unaffected if a home provides lower quality care to achieve savings.

Despite these shortcomings, the research indicates that uniform rates offer the most direct incentive to nursing homes to control and minimize costs. 24/ However, as stated in our earlier reports and testimony, an effective quality assurance system of periodic audits and penalties is critical to insuring that minimum quality standards are maintained. 25/

Prospective and retrospective facility-specific rates are thought to protect against cutbacks in quality from cost reductions, because a facility's annual costs become the basis for the next year's rate. However, retrospective facility-specific reimbursement systems, which reimburse facilities on the basis of their actual cost experience for the preceding year, have been widely criticized as inflationary and inefficient. Prospective facility-specific systems provide a somewhat greater incentive to be efficient, but the incentive should generally be strongest under uniform rate systems.

Limiting facility-specific rates by a ceiling encourages cost savings. For facilities above the ceiling, these systems operate, in effect, as a uniform rate; a facility whose costs are below the targeted rate is usually allowed to keep all or part of the savings.* These savings can result from either increasing effici-

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*Under uniform rates, the facility normally retains payments in excess of its costs as profit.

ency or reducing the quality of services. The method for achieving savings may depend on the combination of a nursing home's patients (private pay and Medicaid). Facilities with predominantly private patients might not attempt to achieve cost savings by reducing quality because they would presumably lose their private clientele. Facilities with predominantly Medicaid patients may be more likely to reduce quality to achieve cost savings or increase profit.

Linking quality considerations to reimbursement systems

Providing a certain level of reimbursement does not necessarily guarantee that a particular level of quality will be provided. However, the link between payment and quality is not easily characterized because of the problems involved in defining and measuring quality care. Studies which have examined this relationship have found conflicting results.

On the one hand, one study using the 1973 NNHS data found higher costs (an additional $0.75 for each patient day) associated with quality, as measured by the presence of Life Safety Codes in a State. It also reported higher costs ($1.45 for each patient day) for homes in States with fixed nursing staff requirements. 26/ Using inspector ratings as a measure of quality, a study of New York nursing homes found lower costs associated with lower quality. 27/ A study of Illinois nursing homes that used license inspection, medical review, and consumer complaint data as indicators of quality found higher costs associated with higher quality. 28/

On the other hand, a recent study by the State of Wisconsin that examined the relationships between quality and reimbursement rates (Medicaid and private) found little evidence that higher reimbursement rates were related to higher quality. Instead, there was a statistically significant association in the opposite direction between SNF rates (both Medicaid and private pay) and quality. Quality, as measured by the number of State nursing home administrative code violations and specific violations related to patient care, was generally lowest in homes with the highest Medicaid and private pay SNF rates. 29/

Some States have gone beyond what is required in the statutes to strengthen the link between reimbursement payments and the quality of care provided in a nursing home. A recent study by the National Citizen's Coalition for Nursing Home Reform, which reviewed some State payment systems for quality considerations, reported that Massachusetts and Florida have linked reimbursement rates to compliance with minimal certification standards. 30/ This method was criticized, however, as rewarding the achievement of only minimal standards. It was also reported that, to address this problem, New York had established a secondary set of standards, above the minimal requirements, to permit additional payment

to facilities which met them; only 10 facilities, a very small number, were reported to be participating. West Virginia and Connecticut have made the payment of efficiency incentives contingent upon having no certification deficiencies; Michigan subtracts up to $1.00 a patient day for homes not in compliance with standards related to quality. 31/ Mississippi reduces a facility's reimbursement rate by 5 percent if the State finds that the facility has not provided an expected level of quality care.

AN ATTEMPT TO REDUCE ACCESS PROBLEMS--
PATIENT-RELATED REIMBURSEMENT

Some States have implemented patient-related reimbursement systems which recognize variation in individual patient care costs. Patient-related reimbursement is intended to be an efficient way to reduce access problems for heavy care patients and to permit adequate resources for an appropriate quality of care. 32/ Basing reimbursement on the expected cost associated with each patient's care presumably covers the cost of caring for these patients; this is also intended to help insure that appropriate services are received. 33/ The theory is that the nursing home is not penalized for providing necessary care to heavy care patients and it is not overpaid for the care of patients with less intensive care needs. 34/

Three States had patient-related reimbursement systems in 1980: Illinois, West Virginia, and Ohio. Maryland implemented a patient-related system in January 1983. Washington is in the process of designing a patient-related system, and New York revised its system to reimburse facilities on the basis of patient "case-mix" in fiscal year 1982.* 35/ Also, according to a recent survey of State Medicaid changes, Montana has implemented a prospective reimbursement system based on patient assessments. 36/

Illinois's system, which began in 1967, assigns points to patient disabilities that are given a value of $1.00 each. Until recently, every Medicaid patient in each home was assessed, and nursing homes received the dollar value of the points for each patient's direct care. In 1978, several problems were found in an evaluation of the system: the administrative costs were relatively high, caseworkers appeared to have a great deal of discretion in assigning patient points, and the point system may have discouraged

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*Washington has used patient assessments indirectly in its reimbursement system. These assessments were used to estimate predicted average costs of facilities' patient care needs. From regression analyses, the facility's upper limit for patient care costs was compared to its historical costs, and the lesser of the two was reimbursed. This policy has been discontinued while the State develops a new patient-related reimbursement system to be implemented in July 1984.

the rehabilitation of patients. There was no incentive to show fewer disabilities for a patient, because this would result in a loss of points and reimbursement. 37/

To address these issues, the State modified its system in January 1982, so that now only 50 percent of each facility's Medicaid patients are assessed. The facility now receives a single rate based on the average score for these patients. Preliminary data suggest that this "case-mix" approach resulted in 1982 expenditures that were approximately the same as what expenditures would have been under the old system. 38/ While the new system does not appear to have saved money, it still provides an incentive to take heavy care patients and overcomes some of the lack of incentive to rehabilitate disabled patients.

Under West Virginia's patient-related system, reimbursement for each patient's care is determined somewhat differently. Patients are evaluated in several areas of need, each of which has a corresponding range of services. Each service unit is assigned a skill level which is converted into the number of minutes required to perform the task. These are multiplied by wage rates and summed to estimate the cost of each patient's care. The sum of these estimated costs for all Medicaid patients becomes a ceiling for reimbursement of the nursing cost center. The facilities receive payment on the basis of their actual costs or the ceiling, whichever is less.

Ohio's reimbursement system, which began in 1980, is very similar to West Virginia's. However, it also includes reimbursement incentives designed to avoid unnecessary institutionalization and undelivered and unnecessary services. For example, if an assessment shows that a patient does not need to be in a nursing home, ostensibly this will result in a reimbursement rate that is "lower than the cost necessary to keep a nursing home bed licensed and certified," which in turn is intended to "encourage the homes to discharge the patient." 39/ These reimbursement incentives, as well as the determination of a patient's care costs, depend heavily on quarterly assessments which adjust the rates to reflect current costs. To be effective, this system requires staffing and resources, which may lead to high administrative costs.

Facilities in Illinois, Ohio, and West Virginia all receive a maximum payment amount for patient care costs on the basis of the patient assessments. Those in Illinois have a greater incentive to keep patient care costs below this maximum, because if they provide this care more efficiently, they may retain, as profit, the difference between their actual patient care costs and the maximum. In contrast, the facilities in Ohio and West Virginia have less incentive to provide patient care costs for less than the maximum amount, because they can receive payment for only their actual costs if these costs are less than the maximum. In these States, there is no opportunity for additional profit from delivering efficient patient care services.

Although the objectives of patient-related reimbursement are desirable, these systems have been criticized for increasing over-all costs and for failing to show that patient assessments can be reliably linked to the most appropriate services. As patient assessment procedures become more complex, but perhaps more accur-ate, they also become more expensive to administer. 40/ Finally, research has not yet been conducted to establish whether access for costly heavy care Medicaid patients improves under a patient-related reimbursement system or whether incorporating quality con-siderations in patient care is possible.* 41/

Currently, two experiments are being conducted to test the relationship between reimbursement and patient access. A group of 36 nursing homes in San Diego is participating in a project admin-istered by the National Center for Health Services Research of HHS that will run for 2-1/2 years. Under the project, bonuses are paid to nursing homes which admit heavy care patients, discharge rehabilitated patients, and improve or maintain the health status of a selected group of special care patients. These nursing homes have an incentive to meet the specified patient outcome objectives because they can retain, as profit, the portion of the bonus pay-ment that is not required for patient care. 42/

Preliminary analysis of the data indicate that nursing homes participating in the incentive payment program admitted a signifi-cantly higher proportion of patients classified as heavy care compared to a matched group of nursing homes not receiving the incentive payment during the same period. The need for "heavy care" was defined as a need for special nursing services such as "tube feeding, comatose care, and Stage III/IV decubiti care." However, when only the nursing homes which had 60 percent or more of their admissions as Medicaid patients were considered, these facilities were found also to have admitted a significantly higher percentage of patients who were dependent in all six activities of daily living, compared to a similar group of nursing homes not receiving the incentive payment. Nursing homes that served a larger proportion of Medicaid patients appeared more willing to admit more types of heavy care Medicaid patients than nursing homes that served mostly private pay patients.

The other incentive payments--for discharging patients and improving or maintaining the health status of selected patients-- seem too new to have proven effective. While data on the cost of the program have not yet been analyzed, there are indications

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*To address these issues, a study funded by NCHSR is assessing the available information on patient-related reimbursement systems. It is supposed to recommend general design principles for a reim-bursement system which can efficiently meet the objectives of a patient-related reimbursement concept. (The ongoing study, en-titled "Designing Quality Incentive Systems for Nursing Homes," is directed by T. Willemain, Cambridge, Mass.)

that the incentive payment system designed for this project may
not be effective in reducing the costs associated with heavy care
patients waiting in hospitals for nursing home beds. 43/ Another
project is developing a reimbursement system that will pay provid-
ers a bonus for achieving a predicted level of patient function-
ing. 44/ Research to date has focused on the development of an
evaluation instrument capable of reliably assessing how well
nursing home patients function in their daily activities. Eventu-
ally, the study intends to design a reimbursement system based on
patient outcome measures.

STATES' EFFORTS TO LIMIT THEIR MEDICAID
NURSING HOME EXPENDITURES

State Medicaid reimbursement policy affects State Medicaid
expenditures both directly, by setting the rate paid to nursing
homes, and, indirectly, by affecting bed supply and use. Inade-
quacies in the State reported reimbursement data make it impos-
sible to demonstrate directly the critical link between reimburse-
ment rate data and nursing home expenditures. It is apparent,
however, that a primary objective of State reimbursement policies
has been to control costs. Since 1980, States have generally been
implementing changes to slow the rate at which their reimbursement
rates can increase. As we noted earlier, this is because of the
reductions in the Federal contribution to State Medicaid programs
resulting from changes in the 1981 Omnibus Budget Reconciliation
Act (Public Law 97-35) and State economic conditions.

According to recent surveys on changes in State Medicaid pro-
grams, more than half the States changed their nursing home reim-
bursement policies or methods in 1981 and 1982 in order to contain
costs. 45/ While most of these changes represented minor adjust-
ments to their present systems, some States made substantial
changes. For example, Arkansas and Utah implemented uniform rates
and Idaho, Maine, Nebraska, and Vermont implemented prospective
payment systems.

Several States have also limited their allowed rate of in-
crease for inflation. While the National Nursing Home Input Price
Index increased 11.6 percent annually between March 1980 and March
1982, Minnesota and Wisconsin held nursing home rate increases to
10 and 7 percent, respectively, for 1982 and 1983. Nebraska and
Delaware have limited nursing home reimbursement rate increases to
3.75 and 5.5 percent, respectively, and Washington has limited its
semi-annual increase to 1.6 percent. Idaho has requested that
nursing home providers accept a voluntary 5 percent reduction in
reimbursement rates for the State's 1983 fiscal year. Iowa and
South Carolina temporarily froze per diem rates in 1982, and Ohio
temporarily reduced interim payments for its relatively new
patient-related reimbursement system. In a related activity con-
cerning the financing of Medicaid nursing home care, Colorado
passed legislation to shift a portion of Medicaid nursing home
costs to local governments and North Carolina mandated that

counties increase their matching of State funds from 15 to 35 percent to finance SNF and ICF care.

Finally, in addition to tightening reimbursement policies, several States are attempting to shift a greater portion of nursing home costs to relatives of Medicaid patients. Legal enforcement of relative responsibility for nursing home costs could constitute a significant policy change for Medicaid. The authorizing legislation specifies that State Medicaid plans may "not take into account the financial responsibility of any individual for any applicant or recipient of assistance," unless the applicant or recipient is the individual's spouse, child younger than 21, or child older than 21 and also blind or disabled. 46/

Some of the proposed State legislation would simply encourage voluntary contributions, primarily by children for their elderly parents. Such voluntary contributions are already permitted under current law, although no such payment may be deemed as income to the Medicaid recipient until actually made; therefore, it cannot be considered for the purpose of determining eligibility for Medicaid assistance. HCFA has recently suggested that if the financial responsibility stems from legislation of "general applicability" (i.e., not specifically directed toward Medicaid), States would not violate Medicaid law because the income would not be deemed available to the Medicaid applicant or recipient until actually made. 47/ Twenty-three States currently have such laws but have not enforced them. 48/

Idaho recently passed legislation, effective October 1, 1983, which requires spouses, parents, and children of Medicaid recipients to pay as much as $3,000 a year for the recipients of nursing home care. This legislation is expected to save as much as $500,000 yearly and will include mandatory fees ranging from $35 to $250 a month. These will be derived from a sliding scale based on a relative's income with some deductions. 49/

These laws may be expensive to administer, may produce insignificant savings for Medicaid, and involve many practical problems. The HCFA transmittal letter to the States has been criticized as inconsistent with the Medicaid law and regulations and HHS's previous interpretation of the law. It also has been criticized as having been adopted as a major policy change without an adequate opportunity for public comment. 50/ We believe that administrative difficulties in implementing the HHS transmittal letter make it unlikely that States will save substantial Medicaid expenditures. In fact, the HHS transmittal letter stated that gross savings may be $100 million annually but that administrative costs may be as high as $75 million annually. 51/

SUMMARY

Among their other objectives, Medicaid nursing home reimbursement systems are expected to contain costs, promote high

quality care, and insure access for those who need care the most. Federal reimbursement policy, however, has not identified the best way to pay for this care while conciliating these often conflicting objectives. Reasonable cost-related reimbursement (section 249 of the 1972 Social Security Amendments, Public Law 92-603) probably had the most significant impact on State rate setting methods and reimbursement levels. Changes in Federal policy (section 962 of the 1980 Omnibus Reconciliation Act, Public Law 96-499) gave the States greater flexibility in adjusting their rates. However, if States make extensive use of this flexibility to hold down reimbursement rates, it would make the objectives of insuring access and quality care more difficult to achieve. Furthermore, less information may be available for detecting or monitoring these changes.

State reimbursement systems can be characterized by their wide diversity. Two broad categories of reimbursement systems, uniform rates and facility-specific rates, have evolved. Reimbursement rates may be established retrospectively, based on estimated interim rates followed by annual settlements, or prospectively, based on historical costs of facilities and subject to maximum payment rates. The result of the diversity in the systems developed by the States is a wide range of reimbursement systems with many unique components that make comparisons difficult and a wide range of reimbursement rates for ostensibly similar services. Further, both systems provide some degree of economic incentive not to admit heavy care patients.

One type of reimbursement system, patient-related reimbursement, has been developed in a few States as an attempt to address the problem of access for heavy care Medicaid patients. These systems attempt to relate reimbursement to the cost of each patient's care needs through periodic patient assessments; they are designed to eliminate the incentive to admit lighter care patients because of potentially higher profits. While the objectives of such a system are desirable, most States may be reluctant to implement patient-related rates because administrative costs may be high; they rely on patient assessments (which do not have well-developed methodologies) for determining costs and services; overall costs could increase; and, most importantly, the effectiveness of patient-related systems in encouraging access for heavy care patients has not yet been established.

Since 1980, many States have specifically changed or revised their reimbursement systems in an effort to contain costs. In addition, some States are trying to obtain more financial assistance from nursing home residents' families to reduce their Medicaid nursing home expenditures. While these actions do not necessarily mean that States will reduce support for nursing home services, or that the quality of care has been or will be adversely affected (because cost controls may produce more efficient care delivery), they do require that States insure, through appropriate mechanisms, that the quality of nursing home care be maintained at the

same time. Quality, however, has been difficult to define, and designing the appropriate incentives to guarantee quality has been problematic. At the present time, few States have payment levels that are linked directly to the quality of care that their nursing homes provide.

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CHAPTER 6

PROBLEMS IN MEDICAID PATIENTS' ACCESS

TO NURSING HOME CARE AND THE USE OF HOSPITALS

BY LONG-TERM CARE PATIENTS

This chapter reviews nursing home access difficulties for Medicaid-eligible persons resulting from State Medicaid nursing home policies, specifically reimbursement. Evidence of the incentive nursing homes have to admit private pay patients is identified, and different actions States have taken to counteract the access problem this causes for Medicaid patients are examined. The chapter then reviews the problem of patients who wait in hospitals for nursing home beds ("hospital backup"). The existence of backup cases is one indicator of access difficulties for certain kinds of patients.

NURSING HOMES PREFER PRIVATE
PAY PATIENTS

A study by the National Citizens' Coalition for Nursing Home Reform (NCCNHR) and information from the National Senior Citizens Law Center lead to the conclusion that nursing homes act in several ways to make access more difficult for Medicaid patients. The NCCNHR study was based on a survey of several State agencies within each State, including the Medicaid agency, fraud control unit or attorney general's office, and long-term care ombudsmen. More than 130 survey responses were received from 44 States and the District of Columbia.

According to the survey findings, nursing homes have taken steps to reduce access by preventing initial admission for Medicaid eligibles, discharging from their facilities former private pay patients once they become Medicaid-eligible because they have exhausted their resources, limiting the number of beds a facility has certified for Medicaid participation, requiring patients to demonstrate that they have sufficient resources to pay privately for a specified period of time, and requiring as a condition of admission that patients have a "responsible party" sign a contract as a means of insuring payment. 1/

Federal laws and State actions intended
to reduce access problems for Medicaid
patients

Several Federal laws prohibit discrimination against Medicaid nursing home patients. For example, antitrust laws have been invoked in Montana against nursing homes which allegedly colluded to refuse admission of Medicaid patients until the State increased the reimbursement rate. 2/ Civil rights laws prevent discrimination against minority individuals. Section 504 of the Rehabilitation

Act of 1973 may also protect Medicaid recipients as qualified handicapped persons who are denied admission because of their care needs, although this law has only been applied to a limited number of nursing homes. Federal Medicaid and Medicare conditions for participation also place limits on the transfer of Medicaid patients except for medical and related reasons. 3/

According to the NCCNHR study cited above, several States have passed their own legislation making it illegal to discriminate in admitting Medicaid-eligible applicants or by transferring private pay patients once they become Medicaid-eligible or charging additional payments to potentially Medicaid-eligible patients. These States include Connecticut, Massachusetts, Michigan, Minnesota, New Jersey, New York, and Ohio. Half of all States also have statutes or regulations similar to Federal patients' rights regulations prohibiting the inappropriate transfer of Medicaid patients. 4/

Because State Medicaid programs have no direct control over who is admitted to a nursing home, many States have implemented preadmission screening programs which assess the need for nursing home care among Medicaid-eligible persons applying. These programs attempt to prevent nursing homes from admitting lighter care Medicaid-eligible persons who could be served in other settings. Generally, however, States cannot control the admission of private pay patients, despite the fact that a portion of these patients will eventually rely on Medicaid to help pay for their care. To counteract this problem, three States--Indiana, Minnesota, and Virginia--have included in their preadmission screening programs private pay patients who are likely to become eligible for Medicaid within a specific period of time after their admission to a nursing home.

To insure the readmission of Medicaid nursing home patients who are temporarily hospitalized, most States have had a policy of paying facilities to reserve a bed temporarily vacated by a hospitalized nursing home patient. This is intended to reduce the incentive to fill the bed with a private patient because payment is received for holding the bed open until the Medicaid patient returns. 5/ A 1980 report by the Office of the Inspector General in HHS indicated that some nursing homes may use hospital admission as a way of discharging "undesirable" Medicaid patients. 6/ Cost containment efforts implemented since 1980 have led several States to eliminate their coverage of these "bed reserve" days. If nursing home occupancy rates are very high, this could lead to increasing difficulties for temporarily hospitalized Medicaid patients in gaining readmission to a nursing home.

Actions in the State of New Jersey provide an example of efforts to address the problems in locating nursing home beds for Medicaid-eligible elderly persons. According to one account, New Jersey nursing homes receive about $4,000 less each year for the care of a Medicaid patient than they do for a private pay patient. 7/ According to monthly data collected by the State,

this may be one major reason why about 3,000 persons are waiting for a nursing home bed at any given time.* 8/

In 1978, New Jersey adopted a regulation requiring all nursing homes to make available "a reasonable number of its beds to indigent patients" as a condition for State licensing. 9/ State Medicaid officials told us that some smaller facilities had admitted a patient free in order to comply with the law while still avoiding participation in the Medicaid program. When this regulation was challenged in the State Supreme Court by the State nursing home association, the court upheld the State action and stated that facilities could raise their private rates to subsidize any cost not covered in the Medicaid rate for public patients. 10/ Ironically, this could increase the rate at which private pay patients exhaust their resources and become Medicaid-eligible.

Some private pay patients in New Jersey have also experienced difficulty in finding nursing home beds. According to the State ombudsman for the elderly, families may find beds for their parents on a private pay basis only

"if [they] are willing to sign a contract and pay about
$20,000 a year for [their] father or mother's care.
Many of the people who call us are frantic. Some of
them are already in their 60's and barely able to
provide for themselves without having to pay $20,000 a
year for their 90-year-old father." 11/

New Jersey has also recently formed a task force which will examine and make recommendations on the appropriateness of nursing homes' requirements for private pay contracts for new patients, the severity of the bed shortage, the lack of incentive nursing homes have for admitting patients discharged from State mental hospitals, and the use of other care settings as alternatives to nursing homes. 12/ In addition, the State has recently begun to guarantee loans to nursing homes which agree to allocate at least 75 percent of their beds to Medicaid recipients. 13/

A different approach to insuring access for Medicaid patients has been tried in Minnesota. In 1978, the State implemented a public-private rate equalization policy (retroactive to April 1976) designed to prevent facilities from charging private patients more than Medicaid patients. This policy was expected to slow the rate at which private pay patients convert to Medicaid eligibility and to remove the nursing homes' incentive to admit private patients.

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*While 2,742 persons were approved for nursing home admission in New Jersey by April 15, 1983, no nursing home beds were available. Although the majority were Medicaid-eligible, 230 private pay and 386 Medicare/Medicaid-eligible persons were waiting for nursing home beds.

The policy was immediately challenged in court by the State nursing home association; in April 1983, the court upheld the policy. Because nursing homes continued to charge private patients more (while placing this extra amount into an escrow account until the case was settled), the effect of the policy in improving access for Medicaid patients cannot be assessed at this time.* 14/

One nursing home industry analyst has recommended that public and private patients be provided different kinds of services and amenities as a way of providing access to nursing homes for Medicaid patients without government intervention. This is based on the industry's belief that private pay residents pay unnecessarily high prices in order to subsidize a low Medicaid rate. According to this analyst, if this policy were implemented, Medicaid patients would not receive the same amenities and non-care-related services that private pay patients receive. 15/

HOSPITAL BACKUP--EVIDENCE OF ACCESS PROBLEMS FOR MEDICAID PATIENTS AND SOME CONTRIBUTING FACTORS

Direct evidence of access problems for Medicaid patients is available from information on hospitalized patients awaiting nursing home placement. These patients are generally admitted to hospitals for an acute illness but are unable to be discharged when their hospital stay is no longer medically necessary; they require nursing home care, but a nursing home bed is not available. Not only is this considered an inappropriate use of health resources; it is also generally accepted that some savings would result from moving these patients to nursing homes.

National data on the number of persons waiting in hospitals for nursing home beds and the length of their waiting time is limited and of questionable accuracy. However, according to the only two reports using national data, Medicare and Medicaid pay for between 1.0 million and 9.2 million days annually of inpatient hospital care when only SNF or ICF care is required but a nursing home bed is unavailable.** 16/ The estimates above for annual hospital

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*Connecticut tries to encourage improved access for Medicaid patients by setting the maximum private nursing home rate. The rates homes receive vary by the number of beds in each room. For example, the maximum private pay SNF rate for a single room would be equal to the State Medicaid rate for that particular facility plus half of the statewide median SNF rate. These rates are much higher than the Medicaid rate, however. The State has not been legally challenged by the nursing home industry.

**The estimate of 1.0 million days was derived from our earlier study based on data collected by HCFA for the first quarter of 1979. The estimate of 9.2 million days was based on a survey conducted by the American Association of Professional Standards

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backup days represented between 1 and 7 percent of all Medicare and Medicaid inpatient hospital days in 1979. 17/ The net cost of this unnecessary care is difficult to estimate because the care is covered under both Medicare and Medicaid and because the alternative cost of caring for these patients in nursing homes, had they not been in hospitals, must be considered as well.

Access to nursing home care for backup patients is primarily a concern of Medicare and Medicaid because, as research indicates, persons with private resources to pay for nursing home care do not often experience a problem in finding a nursing home bed. 18/ While nationwide data on hospital backup days is limited, and firm conclusions about the extent of the problem cannot be made, a number of studies have indicated that the problem is widespread and, in some areas of the country, severe.

Several factors have been identified as contributing to hospital backup. As discussed below, these include Medicaid nursing home reimbursement rates that are inadequately related to some patients' care needs, inadequate bed supply, hospital discharge planning problems, and problems in determining Medicaid eligibility.

Medicaid nursing home reimbursement rates and patient care needs

Probably the most important factors in the hospital backup problem are the care needs of the backup patients and how well the Medicaid nursing home reimbursement rate covers the cost of that care. Our earlier work examined the problem of hospital backup in a study of Ohio hospitals in 1977. A 1-day survey by the Ohio Hospital Association, with 56 percent of the hospitals responding, found 223 Medicaid patients and 944 Medicare patients waiting in hospitals for an SNF nursing home bed. The study concluded that the Medicaid SNF rate was not high enough to cover the cost of skilled care for the Medicaid patients. And while Medicare paid full reasonable costs for SNF care, nursing homes did not want to admit Medicare patients for fear that these patients might become Medicaid-eligible after exhausting their Medicare benefits in a nursing home. The report also concluded that payment rates for SNF care should not be raised without improving the care-determination process. The higher payment rate would not guarantee that these backup patients would be placed in nursing homes. 19/

A study of backup patients in Massachusetts in 1976 divided the records of patients into ten groups, using characteristics such as source of admission, likely source of payment in the nursing home, likelihood of returning to the community, activities of daily living, and behavior. The analysis indicated that the hardest to

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Review Organizations in 1980. This wide range in estimates reflects the lack of information regarding this problem.

place in a nursing home were Medicaid patients, patients who had entered from their homes but were unlikely to return to the community, and those who had entered from a nursing home and were very dependent (particularly those who were incontinent) or had behavior problems. For patients with the latter characteristics, it appeared that nursing homes did not want to readmit very dependent patients. 20/

A study of hospital backup in King County, Washington (the Seattle area), found that one fifth of the Medicaid patients (6 of 31) accounted for 57 percent of total backup costs. 21/ These long-staying patients (longer than 30 days) tended to have more behavioral or mental health problems as well. 22/ A 1-day survey of backup patients in Rhode Island found similar patient characteristics. The typical long-staying Medicaid backup patient was "incontinent, disoriented, exhibited undesirable behavior, and was extremely dependent on the nursing staff for support in mobility tasks and activities of daily living." 23/

A recent study of all backup patients over a year's period in Manhattan (New York County) found that 43 percent of the 3,159 patients waiting for nursing home placement had a primary or secondary diagnosis of psychiatric or addictive illness. In comparison, less than 10 percent of the total Medicare patient population in Manhattan had these diagnoses in the same year. 24/

A recent study in Monroe County, New York (the Rochester area), used a standardized assessment instrument to compare the characteristics of hospital backup patients with patients who were placed in nursing homes. 25/ Contrary to what the study had hypothesized, patients who were admitted to nursing homes were significantly more physically disabled than the backup group. However, the major difference was that the backup patients had significantly more "psycho-behavioral" problems, although few of these backup patients were formerly psychiatric patients in institutions.

Nursing home bed supply

Hospital backup and problems of access to beds for Medicaid patients appear to vary widely and depend heavily upon a narrowly defined local market. 26/ Studies which have used 1-day surveys to examine the relationship between nursing home bed supply and hospital backup have found empty nursing home beds available on the day of the survey. The coexistence of empty nursing home beds and backup patients needing them suggests that some nursing homes, knowing that their beds will soon be filled, have an incentive to wait the short period of time it may take to admit more economically desirable patients. 27/

For example, a study by a Health Systems Agency in New York State on hospital backup found no relationship between nursing home beds per 1,000 age 65 and older in 10 regions of the State compared to the number of backup persons per 1,000 age 65 and older. 28/

The study also found that there was an adequate supply of beds if Medicaid patients had access to all licensed and certified Medicaid beds. The study recommended that measures be taken to guarantee the Medicaid patients' access to these beds. 29/ Most patients waiting in hospitals for nursing home beds were poor and Medicaid-eligible. 30/

The study in King County, Washington, that found 31 hospital backup patients eligible for Medicaid nursing home placement also found a surplus of nursing home beds in the area. 31/ However, as noted above, half of the backup costs were attributed to a small group of patients with service needs beyond what the nursing homes in the area were willing to provide, even though empty beds were available.

The study of the backup problem in Rhode Island supported the Seattle findings. During the 1-day survey, there were twice as many vacant nursing home beds in the State as there were hospital backup patients awaiting discharge. 32/ Despite the general availability of beds, the study results indicate that nursing homes with high occupancy rates have little incentive to admit the patients that are more difficult and require more care when a bed becomes available. 33/

The role of the hospital

From a different perspective, many studies have pointed to the disincentive for hospitals with low occupancy rates to discharge backup patients. Hospitals that continue to receive inpatient hospital reimbursement for patients longer than is medically necessary may have inadequate discharge planning and may make weak attempts at placement. 34/

The effectiveness of hospital discharge planning in placing backup patients in nursing homes may not be consistent across hospitals or States. However, its inclusion as a standard in the recently proposed revisions to the hospital "Conditions for Participation in Medicare and Medicaid" may help create a more uniform discharge planning service across all hospitals. 35/ This may contribute to more efficient placement of these patients, although the research suggests that, in areas with a backup problem, active attempts are already being made to locate nursing home beds without success.

One recent study of hospital discharge planners concerning nursing home placement, conducted in an area of Massachusetts defined as having a nursing home bed shortage, found that hospital discharge planners had problems in placing backup patients quickly even when they actively tried to do so. 36/ Many discharge planners stated that Medicaid patients did not have a choice in selecting a nursing home. In addition, they indicated that nursing home personnel openly expressed an interest in Medicaid patients who were the easiest to care for, thus placing hospital discharge plan-

ners in the position of "marketing" their backup patients. Also, the difficulty in finding any bed relegated the quality of care a nursing home provided to a secondary issue. The study noted that "Medicaid or heavy care patients generally are discharged to the first nursing home that will accept them." 37/

Delay in determining Medicaid eligibility has also been cited by several studies as a problem in timely nursing home placement. 38/ In addition, physicians may believe that it is preferable to keep their patients in hospitals where they will receive more specialized care—and where it is more convenient to visit them. 39/ The decision to enter a nursing home may entail at least several days for planning and arranging to move from a hospital. Also, families may want to keep their elderly parents in hospitals while waiting for beds in particular nursing homes.

PROBLEMS IN MEASURING THE MAGNITUDE
OF HOSPITAL BACKUP

The discussion above indicates that among the several factors that have been identified as contributing to hospital backup, probably the most important are the adequacy of the Medicaid nursing home reimbursement rate in covering the cost of care and the service requirements of the backup patients. The effects of nursing home bed supply and hospital care on hospital backup are less clear.

Measuring the severity of the backup problem is also difficult. One reason is that most studies which have been conducted to measure this problem have used 1-day surveys. Although these surveys do indicate the number of persons waiting for a nursing home bed, most of these patients probably do not wait very long. For example, the study using 1976 data on backup patients in Massachusetts resurveyed these patients 6 weeks later to determine how many were still waiting. Of the 620 patients waiting for a nursing home bed at the time of the first survey, one quarter were placed in nursing homes within 2 days of the initial survey, and only 12 percent had not been discharged by the time of the second survey 6 weeks later. 40/ This study indicates that the problem may represent a combination of the needs of many individuals with brief backup stays and a smaller number with long, costly backup stays.

The national survey, conducted by the American Association of Professional Standards Review Organizations in 1980, found that compared to Medicaid, more than three times as many hospitalized Medicare patients were waiting for nursing home beds. 41/ The research on backup patients suggests that many of them would be ineligible for Medicare SNF placement because they did not meet the Medicare criteria for post-hospital extended SNF care. Because many of these individuals are potential Medicaid nursing home patients, State Medicaid spending is reduced or delayed while these patients are hospitalized under Medicare coverage. 42/

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Most backup costs go undetected
under Medicaid and Medicare

While available evidence does not permit strong conclusions about the severity of the backup problem, there are reasons to believe that Medicare and Medicaid hospital utilization reviews have not been able to detect backup costs. Medicare covers most elderly persons' hospital stays, including the stays of the elderly who are poor and also qualify for Medicaid. It also covers 1 to 3 medically unnecessary days for discharge planning under the Professional Standards Review Organization (PSRO) Assumption of Review Responsibility regulations.* (These days are referred to as "grace days").

However, for patients requiring an SNF-level nursing home bed while being unable to locate one, the PSRO has considered these days as medically necessary because no nursing home bed was available and the patient could not be safely discharged from the hospital. 43/ Because these Medicare days are reported and paid for as if they were for medically necessary, acute care, their number and costs go undetected.**

Although elderly persons' hospital stays are generally paid for by Medicare, these people may sometimes exhaust their Medicare benefit and become ineligible for continued Medicare coverage.*** Patients may also lose their Medicare coverage if they no longer require acute care or Medicare skilled care. However, if they are poor and qualify for Medicaid, some States will cover their hospital stay while they are waiting for a nursing home bed. For State Medicaid programs that pay for these backup days, these days are identified and reported. However, while the problem may exist in other States, it goes unreported because States do not pay for

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*PSRO law (Public Law 92-603) required that physician-based peer reviews of health care be conducted to insure that both a proper quality of care was provided and health care costs were limited. The PSRO program was modified in the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248) to require that HHS enter into performance contracts for utilization and quality control with peer review organizations beginning on October 1, 1983. They will perform essentially the same functions as PSRO's.

**For the brief period January 1979 through June 1981, HHS collected information on Medicare hospital days approved because of the wait for placement for a nursing home bed. However, the quality of these data is considered poor.

***Medicare's hospital benefit is exhausted when a person uses all 60 days of a lifetime reserve in a hospital after using all 90 days of a hospital benefit period.

backup days. As with Medicare, the magnitude of the backup problem and its costs to Medicaid go largely undetected in most States.*

The 1980 Omnibus Reconciliation Act (Public Law 96-499, section 902) required that both Medicare and Medicaid pay a reduced hospital rate for patient stays identified as medically necessary only because a nursing home bed was unavailable. Under Medicare, any day beyond the 3-day grace period would now be identified and reported as a hospital backup day. Under this law, the hospital is to receive a reduced rate equal to the adjusted statewide average SNF or ICF rate. This policy is intended to reduce Medicare hospital costs. However, while States have acted to bring Medicaid programs into compliance with the law, section 902 had not been implemented for Medicare by September 1983. Cost saving for Medicare was the primary congressional intention of section 902.

State Medicaid policies for reimbursement of hospital backup days

States enforce a variety of policies in the reimbursement of identified backup days. In our survey, we asked State Medicaid officials whether they paid for Medicaid patients waiting in hospitals for a nursing home bed. Our survey findings indicated that the majority of the States (35) did not reimburse for backup days or did so for only a limited number of days or at a limited reimbursement rate.

The following 16 States did not reimburse for days identified as backup days under their Medicaid programs:

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*Limited information is available on the cost of backup days to State Medicaid programs. For example, California Medi-Cal officials estimated that Medicaid backup costs could be reduced by almost $3 million a year by paying hospitals a reduced rate for these days. The Massachusetts Department of Public Welfare estimated the cost of backup as $29 million in fiscal year 1980 and an average length of stay for backup patients between 80 and 90 days. A study of the backup problem in Connecticut estimated that net backup costs to the State were $4.9 million in 1980 (after excluding the cost of care that backup patients would have otherwise received in a nursing home). (California State Department of Health Services, Fiscal Analysis of Proposed Medi-Cal Acute Administrative Days Regulations (R-47-80), Report 521, No. 23 (Sacramento, Calif.: January 15, 1981); Massachusetts State Department of Public Welfare, The Administrative Day Problem: An Analysis of Selected Hospitals (Boston, Mass.: July 1980), p. 1, and "June 24 AD Survey," memorandum, October 2, 1980; and Connecticut Hospital Association, "Extended Hospital Stays: Current Status of the Problem," CHA Reports, No. 4, September 1980, p. 7.)

Alabama	Louisiana	Pennsylvania
Arkansas	Missouri	South Carolina
Colorado	New Jersey*	Texas
Florida	North Dakota	Virginia
Kansas	Oklahoma	West Virginia
Kentucky		

In these States, patients were discharged when their stay was determined as medically unnecessary or they continued to stay in the hospital with their costs shifted to the hospital or some payer other than Medicaid.

The following States limited the total number of inpatient hospital days they covered and reimbursed backup days if they occurred within these limits:

Idaho	40 days for each admission**
Maryland	20 days for each spell of illness
Mississippi	20 days for each fiscal year**
Oregon	19 days for each fiscal year.

The following 15 States reimbursed days identified as backup days with restrictions in either payment levels or length of stay:

Alaska	Reduced long-term care rate
Delaware	Acute rate for a maximum of 28 days
Georgia,*** Illinois, North Carolina, Ohio, Tennessee	Acute rate for a maximum of 3 days****
Hawaii	Acute rate for a maximum of 2 days, statewide average SNF rate thereafter ($52.20)

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*New Jersey was involved in litigation to avoid reimbursement of backup days. Data on the number of Medicaid patients in hospitals awaiting nursing home beds had been collected since 1975. State budget estimates assume that there are 800 Medicaid patients on any given day waiting for a nursing home bed. The State Supreme Court ordered the State to reimburse the plaintiff hospital for backup days. The State has chosen to reimburse all hospitals for backup days.

**Idaho's policy has changed to 40 days of hospitalization each year, and Mississippi's policy has increased to 30 days of hospitalization each fiscal year.

***Georgia's backup payments are now limited to the 3 days that fall within the period of time for which Medicaid covers hospital care--20 days each fiscal year.

****These 5 States followed Medicare's grace day policy, which allowed a maximum of 3 days for discharge planning.

Massachusetts	Cost of routine services (55 percent of acute rate)*
Michigan, Nebraska	Acute rate for a maximum of 3 days, statewide average SNF or ICF thereafter
New Hampshire	Acute rate for a maximum of 14 days
New Mexico	Statewide average SNF or ICF rate
Vermont	Statewide average nursing home rate ($34.50 per day)
Wyoming	Acute rate for a maximum of 5 days.

Of these 15 States, 8 limited the length of stay for backup days and 7 limited the reimbursement rate to one that was less than that for acute care.

Fifteen States paid the full acute care rate for an unlimited number of backup days. These States were affected by the cost savings provision in section 902 discussed earlier. 44/ According to HHS, section 902 does not require that States that have not reimbursed for backup days begin paying a reduced rate. The 15 jurisdictions affected by section 902 were

California	Nevada
Connecticut	New York
District of Columbia	Rhode Island
Indiana	South Dakota
Iowa	Utah
Maine	Washington
Minnesota**	Wisconsin
Montana	

Since this time, six of these States have implemented, or intend to implement, a reduced payment for backup days.***

Changes to Medicare hospital reimbursement
and the backup problem

The impact of hospital backup on Medicare expenditures is likely to change significantly in the next few years as a result of recent legislation governing Medicare hospital reimbursement. The Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248, section 101) established target growth rates for Medicare hospital expenditures for each patient for a 3-year period beginning

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*On February 1, 1981, Massachusetts revised its policy and began paying $70 a day for Medicaid patients waiting in hospitals for nursing home beds.

**Minnesota had 25 hospitals that received the regional average SNF or ICF rate.

***These six States are Calif., Iowa, Maine, Nev., N.Y., and Wis.

in October 1982. Payments are also limited by the new section 223 limitations on Medicare hospital reimbursement which are based on an average cost for each patient and include ancillary service operating costs for the first time. 45/

More importantly, the backup problem will be affected by newer Medicare hospital legislation. The Social Security Amendments of 1983 (Public Law 98-21, section 601) established payment rates based on diagnosis-related groups (DRG's). Medicare hospital payment rates based on 467 diagnosis categories were phased in starting October 1, 1983. The DRG system reimburses for each patient at a pre-established rate, regardless of the costs actually incurred for the patient or the patient's length of stay in the hospital. HHS officials believe that this reimbursement system will provide hospitals with an incentive to reduce medically unnecessary hospital stays. As a result, HHS had not yet implemented section 902 of Public Law 96-499, which was designed to identify and reduce backup costs, by September 1983.

The DRG system also has a mechanism to recognize long stays, including backup stays, under the "outlier adjustment provision." This provision allows hospitals to receive an additional payment (lower than the DRG-specific average per diem rate) after a patient's stay or cost exceeds the limits HHS has established for defining an outlier. HHS estimates that 85 percent of all outlier payments will qualify as such by exceeding the mean length of stay for a DRG by the lesser of 20 days or 1.94 standard deviations. Therefore, the extent of outlier days paid will provide an indication of the number and cost of what would be considered backup days. However, not all days paid for as outlier will be backup days because some patients will actually require inpatient hospital care. Moreover, patients with backup days will not have outlier payments associated with those days if they are discharged before exceeding the outlier payment criteria. Thus, the number of days of outlier care will probably only provide a rough estimate of the number and cost of backup days.

ATTEMPTS TO SOLVE HOSPITAL
BACKUP PROBLEMS

Hospital backup problems are complex; attempts to resolve them should recognize their complexity. One approach, using the DRG system, reduces payments to hospitals for backup patients. This may, however, unfairly penalize hospitals when it is the nursing home which either refuses to admit a patient or cannot do so because it is operating at maximum occupancy. The DRG payment method may also cause problems for patients if they are discharged by hospitals too quickly to nursing homes which cannot provide the level of care they require.

Because of the DRG incentives, nursing homes expect that the demand for their services will increase as hospitals seek placement for convalescent Medicare patients. As hospitals attempt to place

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convalescent Medicare patients in scarce nursing home beds, problems in placing heavy care Medicaid backup patients may increase. Increasing reimbursement to nursing homes as an incentive to admit heavy care backup patients will not, however, insure the patients' admission if occupancy rates are high. Further, if higher payments are made to nursing homes, they should be targeted to insure that these particular patients are admitted. It may also be difficult to discharge backup patients if families prefer to keep elderly parents in hospitals. Finally, persons eligible for Medicare SNF coverage may remain in the hospitals because no Medicare certified SNF bed is available. Because many States have a limited number of Medicare beds, these patients may have to travel a great distance to receive care covered by Medicare or they may have to wait in the hospital until a Medicare SNF bed is available.

A few States have increased Medicaid nursing home reimbursement only for patients who were discharged from hospitals and considered to have costly care needs. Oregon pays more for Medicaid patients who have more intensive care needs than the average patient. In 1980, an extra $9.16 a day was paid to SNF's and an extra $7.49 was paid to ICF's for admitting heavy care patients from hospitals. In Massachusetts, the State intervened twice in 1982 to reimburse nursing homes with a bonus payment to admit particularly long-staying backup patients. According to State officials, these two interventions appeared to reduce the large number of backup patients substantially, although they did not believe this was a permanent solution to the problem. Utah has recently begun to pay a negotiated higher rate for a specified period of time for a hospitalized patient whose care costs exceed 125 percent of the SNF rate. 46/

In 1980, Wisconsin implemented a program in areas with a hospital backup problem in order to reduce backup days. The three nursing homes participating in the program by July 1983 had higher staffing and equipment requirements than regular SNF's. They were also required to have a transfer agreement with a hospital to admit eligible patients. A review of the project indicated that these nursing homes did not increase the level of services for the targeted patients. In addition, the nursing homes believed that some of their current residents required the new, higher level of care and reimbursement. State officials indicated that the program will be discontinued or greatly modified.

While paying nursing homes a higher reimbursement rate to accept backup patients may be effective, this policy could (as suggested in the Wisconsin program) result in nursing homes demanding higher reimbursement for their current residents. The characteristics and needs of some current residents may be very similar to those of backup patients. 47/ While increasing the nursing home bed supply may alleviate part of the problem, many States are reluctant to allow this, because it would increase Medicaid expenditures. For example, two studies in New York concluded that without

additional patient reimbursement, additional beds would be filled by private pay and lighter care Medicaid patients rather than the difficult-to-place backup patients. 48/

Alternatively, it has been proposed that it would be less expensive to care for backup patients in empty hospital beds, especially at a reduced rate, than it would be to build new nursing homes. 49/ Proprietary nursing home chains estimated a cost of more than $22,000 to build a bed in 1982. Hospitals, however, may be reluctant to use their facilities for long-term care. And, if they did, this might also lead to requests for new hospital construction and expansion at a time when there is a consensus that hospital bed supply is adequate.

Even if hospital care were cheaper than other alternatives, there is debate as to whether hospitals are the appropriate setting for chronically ill patients. Hospitals in Iowa, South Dakota, Texas, and Utah participated in a demonstration project under a waiver from HHS which allowed acute care beds to "swing" to long-term care beds when the patient no longer required acute care. An evaluation of these experiments concluded that the quality of patient care was lower in the swing beds compared to a group of area nursing homes judged to be of relatively high quality, although the discrepancy was not substantial. The biggest differences were for hospitalized SNF-level patients, who were more depressed, lonely, and isolated than patients classified at the same level in nursing homes. It has been argued, however, that increased staff experience with long-term care patients would improve hospital-based chronic care. 50/ Legislation allowing a swing-bed program for certain small rural hospitals was passed in the 1980 Omnibus Reconciliation Act.

While hospital backup has led to increasing the size of the chronically ill population in hospitals, there appears to be, in general, a growing hospital population with chronic, rather than acute, illnesses. It is estimated that 38 percent of all inpatient hospital days for the elderly in 1980 were for patients with long-term or chronic illnesses. 51/ A recent task force report by the Massachusetts Hospital Association concluded that, because of the challenge of meeting the needs of this growing number of older patients with chronic disabilities, acute care hospitals should begin to provide long-term care. 52/

While some hospitals are already working with the nursing home industry because they have made collaborative arrangements or have purchased nursing homes, it has also been proposed that a more viable option would be for hospitals to develop long-term care units specifically for elderly patients. To assist hospital expansion in this area, a leading health foundation has recently announced grant awards to be made to as many as 10 hospitals over a 4-year period. The purpose is to help them "develop improved comprehensive and coordinated long-term medical care and social services to individuals within a defined, elderly population." 53/

SUMMARY

     Patient characteristics and care needs, combined with State
Medicaid nursing home reimbursement and bed supply policies, have
helped to create an access problem for some Medicaid and poten-
tially eligible Medicaid patients in need of nursing home care.
Limited data are available, however, to assess the extent to which
access problems exist, how they compare across States, or how
effective Federal and State statutes and regulations have been in
alleviating them.

     One of the difficulties many Medicaid patients experience is
that they wait in hospitals, often paid for at an acute care rate,
because they cannot gain access to a nursing home. It is estimated
that Medicare and Medicaid pay for between 1.0 million and 9.2 mil-
lion days annually of inpatient hospital care when a nursing home
bed is unavailable for patients requiring only SNF or ICF care.
These days are referred to as "backup" days. Access to nursing
home care for backup patients is mostly a concern of Medicare and
Medicaid because research indicates that persons with private re-
sources to pay for nursing home care have no problem in finding a
nursing home bed.

     Several factors have been identified as contributing to hos-
pital backup. Probably the most important are the heavy care needs
of backup patients combined with the inadequacy of the Medicaid
nursing home reimbursement rate in covering the cost of their care.
According to the several studies reviewed, the longest-staying
backup patients tended to be Medicaid-eligible, to have behavioral
problems, to be incontinent and disoriented, and to suffer from
addictive illnesses. Other factors related to hospital backup in
any given locality include the availability of nursing home beds
and the role of discharge planners, physicians, and families in
discharging the patient to a nursing home.

     Medicare pays for most backup days because most elderly hos-
pitalized patients are covered by this program and, if they cannot
locate a needed SNF bed, their hospital stay is certified as medi-
cally necessary. Many of these persons would become eligible for
Medicaid if placed in a nursing home.

     Before passage of the 1980 Omnibus Reconciliation Act, Medi-
care and, in many States, Medicaid paid for a maximum of 3 medi-
cally unnecessary days for discharge planning. However, many
patients' hospital stays were certified as medically necessary be-
yond the 3-day grace period because they could not find a nursing
home bed and they could not be safely discharged to their homes.
As a result, these days were not reported as backup hospital days
and their number and cost went undetected.

     The 1980 Omnibus Reconciliation Act (Public Law 96-499, sec-
tion 902) required that both Medicaid and Medicare pay a reduced
hospital rate to patients waiting to be placed in nursing home
beds. Then, under Medicare, a Professional Standards Review

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Organization was required to identify and report backup days and to insure that hospitals received a reduced reimbursement rate.

Under Medicaid, only some States had been paying an acute care rate for days identified by the PSRO as backup days before the passage of section 902. Many of these States have since changed their Medicaid reimbursement policies in accordance with section 902. Section 902 had not been implemented under Medicare by September 1983 because of changes in Medicare hospital reimbursement enacted in 1982 and 1983. HHS expects that these changes, especially the prospective DRG payment system, will provide an incentive to hospitals to reduce unnecessary hospital stays. The outlier provision of the DRG's will make it possible to estimate roughly the number and cost of backup days, although it is not designed to distinguish backup patients from patients who require very long hospital stays or from patients with backup stays that do not meet the criteria for outlier payments.

Attempted solutions to the backup problem are complex and their effectiveness is yet to be determined. The DRG system approaches the problem by reducing payments to hospitals for patients awaiting nursing home placement. However, these patients may not be able to enter nursing homes because high nursing home occupancy rates allow nursing homes to select the most economically desirable patients. As hospitals respond to the DRG incentive to reduce lengths of stay, problems for backup patients needing heavy care in nursing homes could increase if nursing homes prefer to admit convalescent Medicare patients. Also, problems in patient care may arise if patients are discharged too quickly from hospitals to nursing homes.

Other solutions to the backup problem include giving nursing homes incentives to admit backup patients, expanding nursing home bed supply, and using extra hospital capacity for long-term care. All three proposals would increase Medicaid expenditures. Although the use of extra hospital capacity, the third proposal, would alleviate the need for new nursing home beds, hospitals may be reluctant to use their extra capacity for long-term care, hospital-based rates may be relatively high, and information on the quality of long-term care that hospitals provide is limited. In addition, other hospitals with high occupancy rates could use this argument to create additional pressure to expand their facilities even when there is consensus that there are enough hospital beds nationally; hospital expansion could also lead to unnecessary increases in health expenditures.

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CHAPTER 7

CONCLUDING OBSERVATIONS

No overall national policy addressing long-term care services for the elderly population exists. Medicaid has become the Nation's primary single payer for the most expensive of these services, nursing home care. Nationally, expenditures for nursing home care totaled $24.2 billion in 1981. This program plays the predominant role in long-term health care because Medicare and private insurance cover only short-term nursing home care. As a result, many elderly individuals who cannot afford the catastrophic cost of long-term stays in institutions become eligible for Medicaid. Medicaid supports in whole or in part between 48 and 75 percent of all nursing home residents.

Medicaid expenditures for nursing home care have grown to the point that the program paid for nearly half the cost of nursing home care in 1979, the latest year in which a breakdown of expenditures is available. However, there has been no commensurate growth in information on how effectively the elderly who are in need of nursing home care are being served, how services compare across States, the extent or quality of the services paid for, or how efforts to control medical costs relate to Medicaid's support for nursing home services.

The Medicaid program is intentionally flexible. The legislation specified no method of reimbursement and no direct definition of the population to be admitted to nursing homes. State control over eligibility criteria, bed supply, and reimbursement policy has resulted in a loosely knit system of Medicaid nursing home programs which vary across the States.

Our examination of Medicaid nursing home expenditures, reimbursement policies, and bed supply, combined with a review of data on the need for and the use of nursing home services, indicates that the program faces the following problems.

<u>The flexibility afforded to the States in administering the Medicaid program is associated with variations in their nursing home programs. Little information is available, however, at the national level to evaluate the significance of these program differences across the States.</u>

The result of State flexibility in the administration of Medicaid permits great diversity in State policies with respect to nursing home care. Even when 1980 State and local expenditures are adjusted for differences in nursing home wages, the State spending the most for nursing home services for each elderly resident ($274) spent eight times as much as the State spending the least ($34). Such differences were not found to be associated with measures of States' fiscal resources; instead, they seem to reflect the interaction of historical, economic, political, and demographic factors shaping each State's Medicaid program.

The Federal medical assistance percentage is designed to compensate for disparities in State fiscal resources, but it does not target this assistance to specific Medicaid services. As a result, even though the Federal Medicaid contribution does substantially increase nursing home spending for each elderly resident in poorer States, it does little to equalize spending for nursing home services across the States. We found that the Federal medical assistance percentage eliminated about 8 percent of the overall variation in spending among the States.

Variations in the supply of nursing home beds raise questions regarding the availability of nursing home care. In 1980, States ranged in nursing home bed supply from a low of 22 beds per 1,000 elderly persons in Florida to a high of 94 in Wisconsin. When bed supply was compared to the characteristics of a very dependent population likely to use nursing home care--individuals age 75 and older who are unmarried and dependent in toileting and eating--it was found that only 54 percent of the members of this group were in nursing homes in the jurisdictions (9 States and the District of Columbia) with the lowest bed/population ratios.

However, more than 90 percent of the persons with these same characteristics were in nursing homes in the 10 States with the highest bed/population ratios. This may indicate an inadequate supply of beds (or inadequate access to beds) in the lowest-bed States or an overuse of nursing home services in the highest-bed States or, most likely, a combination of both. In any case, the probability that elderly individuals who are very dependent and have similar needs will enter nursing homes depends on where they live.

States have also been permitted relative flexibility in designing their reimbursement systems to meet the objectives of controlling costs and insuring access to and the quality of care. However, in meeting these objectives, the States have established diverse payment systems, and the diversity has produced reimbursement rates that vary widely for ostensibly the same type of care.

Few data are available at the national level that would allow us to evaluate the significance of program differences across the States. Until data are developed and research is conducted in this area, it will not be understood whether State Medicaid program variations are related in important ways to the provision of adequate and consistent nursing home services to needy populations. The lack of data and research is a major barrier to determining if persons receive similar services across States, if an adequate quality of care is provided, and if it is delivered efficiently.

The growing cost of nursing home services has led many States to focus on cost containment measures. These State actions may result in the continuation of, and could possibly increase, the current problems by intensifying existing incentives to use the health care system inefficiently.

The cost of nursing home care has increased rapidly. The States have felt particularly strong pressure to control Medicaid costs because of cutbacks in Federal Medicaid assistance enacted in the 1981 Omnibus Budget Reconciliation Act and because of a general economic downturn which has cut into the States' fiscal resources. To reduce the rate of increase in Medicaid nursing home services, the largest component of the Medicaid program, many States are trying to limit bed supply or tighten controls on reimbursement rates or both. These events are occurring despite indications that nursing home occupancy rates are high nationally and that, in recent years, the annual growth rate in bed supply has not kept pace with the annual growth rate in the number of the heaviest users of nursing home care--those 85 and older.

Although efforts to contain costs can lead to more efficient care delivery, they can also lead to an inappropriate use of health services. Because most State reimbursement systems are not designed to pay for the cost of caring for each patient's needs, and because they also limit the allowed payment rate, most nursing homes have an economic incentive not to admit costly, heavy care Medicaid patients. This means that, in some areas of the country, Medicaid patients with heavy care needs wait in hospitals (often paid for at higher acute care rates) because they cannot gain admission to nursing homes.

The needs that these patients have for care and the inadequacy of the Medicaid nursing home reimbursement rate in covering the cost of their care are considered to be among the most important causes of this inefficient use of costly hospital resources. However, the data on the magnitude and costs of this hospital care for the elderly are poor, because neither Medicaid nor Medicare can identify most of these patients.

Recent legislative changes have been made in Medicare hospital reimbursement to strengthen hospital incentives to discharge patients sooner, but this may lead to problems for patients who wait in hospitals for nursing home beds. As hospitals attempt to place convalescent Medicare patients in scarce nursing home beds, in response to these legislative changes, problems in placing heavy care Medicaid backup patients may increase. Problems may also occur for patients if they are discharged from hospitals too quickly to nursing homes that cannot provide the level of care that they require.

Limited evidence also suggests that, at the same time that the States are trying to control nursing home costs, the persons who have been admitted to nursing homes are becoming more dependent in the activities of daily living and have greater nursing care needs. Furthermore, to the extent that the increased use of community-based services and preadmission screening programs postpones entry into nursing homes for some proportion of the at-risk population, those who do eventually enter nursing homes will be the most dependent persons and will have the greatest need for care.

Demographic trends strongly suggest that more people are likely to enter nursing homes in the coming decade unless major breakthroughs are made in preventing or treating the chronic and debilitating illnesses that often lead elderly persons to enter nursing homes. Unless efforts to limit the supply of nursing home beds are linked to concomitant efforts to insure that community-based services are sufficient to meet the needs of this growing population, the impact of these cost containment measures may be detrimental to the elderly and may encourage the continuation of an inappropriate use of medical services.

In conclusion, observations drawn from this study have focused on the broad program objectives of Medicaid's nursing home program as well as on research questions concerning the specific components of each State's program. We note that

--our data on bed supply trends indicate that nursing home bed supply is unlikely to increase rapidly, given current State incentives to prevent it. This suggests that improvements are needed in the efficiency with which Medicaid nursing home services are provided across the States: the elderly who are in need of long-term care should be assisted to remain in the community as long as possible and economically feasible, and the individuals who are most in need of nursing home services should be able to receive them.

--our data on patient characteristics indicate that preadmission screening by Medicaid, expanded use of community-based, long-term care services, recent changes in Medicare hospital reimbursement, and other factors will reinforce the trend of a nursing home population with potentially increasing dependencies and care requirements. Reimbursement systems and other appropriate mechanisms should be developed to accommodate this changing nursing home population and to insure high quality and cost efficient care delivery.

Although HCFA has both ongoing and proposed research in many of the areas identified in this report, the following research issues are particularly important for addressing some of the current problems in the delivery of Medicaid's nursing home care. These issues emerge from the difficulties we encountered in attempting to examine these problems in our study.

--Information is needed for identifying whether Federal and State efforts to use the Medicaid home and community care waiver provision, preadmission screening, and other such mechanisms are sufficient to insure that individuals who could be served appropriately at less cost in their own homes or in other settings are able to avoid entering nursing homes.

--Because the number of nursing home beds has a direct effect on Federal and State Medicaid expenditures for nursing home

care, additional information is needed for addressing the
conflicting findings on the wide range of bed supply across
the States and for determining whether this variation cre-
ates a problem for those who need nursing home care the
most.

--Current research and information are inadequate for identify-
ing the best way to provide incentives to nursing homes to
admit patients who have extensive care requirements and to
establish controls that will insure that increases in Medi-
caid's reimbursement rates to cover "heavy care" patients
are accompanied by an acceptable level and quality of care.

--Information on the number and characteristics of hospital-
ized patients awaiting nursing home beds would help estab-
lish which approaches or combination of approaches to
providing long-term care services (e.g., in hospitals, in
nursing homes, or at home with home health care) are the
most cost-effective for different types of patients.

--There are fundamental gaps in information on the most basic
components of Medicaid's support of nursing home care, and
they caused major problems in our efforts to assess the
program across the States. Data on the care needs of the
persons served, beds, patient days, expenditures, and levels
of care are generally outdated, unreliable, or unavailable.

The U.S. Department of Health and Human Services reviewed a
draft of this report, and HHS's letter commenting on the review is
in appendix XIII. The comments on the draft are highly favorable.
The inaccuracies mentioned in the HHS letter were of a minor tech-
nical nature. They have been corrected in the report, where nec-
essary; they did not affect the validity of our findings or of
our interpretations of the data.

Congress of the United States
House of Representatives
Subcommittee on Health and the Environment
of the
Committee on Energy and Commerce
Washington, D.C. 20515

July 15, 1981

Mr. Milton Socolar
Acting Comptroller General
   of the United States
U. S. General Accounting Office
441 G Street, N.W.
Washington, D. C. 20548

Dear Mr. Socolar:

     Reductions in the Medicaid program, coupled with
deficits the States are currently facing, may lead to
serious service cutbacks and in a tightening of
eligibility requirements. A prime target for these
restrictions will be the area of nursing home care,
since nursing home expenditures typically consume 40%
of a state's Medicaid budget.

     Recent briefings and information supplied by your
Institute for Program Evaluation staff have indicated
that in spite of this sizeable dollar commitment by the
Federal gvoernment and States to nursing home services,
little information exists to explain and justify the
extreme variability in expenditures and services
covered by States. At this time the Department of
Health and Human Services is not able to provide infor-
mation which explains the reasons behind escalating
nursing home expenditures nor can it identify the factors
which lead to a higher federal subsidy of these services
in some states than in others.

     Furthermore, in order for States to prepare to take
full advantage of the opportunities provided by the option
to expand non-institutional service coverage under
Medicaid (as proposed in the House Reconciliation bill),
States will need to examine more carefully the management
of their nursing home expenditures. They will need to
determine whether their current expenditures are justified
by necessary utilization and quality of care and whether
there is a need for more adequate planning and monitoring
of long term care.

Mr. Milton Socolar
July 15, 1981
Page Two
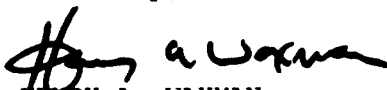
        Data tapes developed and acquired by your Institute
staff could produce information of assistance to the
Subcommittee in examining these and other issues relating
to Medicaid nursing home expenditures. Your staff could
use these data bases to identify for the Subcommittee
factors leading some states to spend a larger share of their
Medicaid budgets on nursing home care than others. Is it
because they have more beds? more elderly? more poor
elderly? The Subcommittee is also interested in learning
more about the characteristics of the population served
in nursing homes. If a state has more skilled nursing
beds than intermediate care beds is it because it serves
a heavier care population thereby justifying a higher
Medicaid expenditure? Finally the Subcommittee is interested
bot in patient turnover rate in facilities and whether indi-
viduals entering nursing homes today differ from groups
admitted in the past. All this information would be helpful
in an assessment of the potential short and long term impact
of Medicaid coverage of community care on nursing home
utilization and expenditures.

        We would like your staff to conduct these and other
appropriate analyses of the data and present the findings,
along with other descriptive data pertaining to Medicaid
and nursing homes in each state, in a report to the
Subcommittee.

        We have found the high level of information and
analysis provided by your Institute staff to the Subcommittee
to be of great assistance. We know this report will continue
that tradition.

        With every good wish, I am,

                                Sincerely,

                                HENRY A. WAXMAN
                                Chairman, Subcommittee on
                                Health and the Environment

HAW/ska

DETAIL ON MINNESOTA MEDICAID DATA ANALYSIS

This appendix describes the Minnesota Medicaid Quality Assurance and Review Program data and our analysis of the consolidated data file. A description of the Medicaid review process for 1976-79 is followed by a discussion of the review instrument's precision and how we prepared the consolidated data set for our analysis. Finally, two summary indexes used in our analysis--dependency and nursing care time--are discussed briefly.

MEDICAID QUALITY ASSURANCE REVIEW PROCESS 1/

In Minnesota, periodic medical reviews are conducted for all recipients in skilled nursing homes and institutions for mental diseases and independent professional reviews are conducted for recipients of care in intermediate care facilities. These reviews assess the quality, quantity, and appropriateness of the care that is provided to Medicaid recipients. The reviews are conducted by the Quality Assurance and Review Program of the Minnesota Department of Health under an agreement with the Department of Public Welfare.

In 1976-79, each of 12 review teams consisted of a registered nurse, a senior social worker, and a consulting physician. Six weeks before a review, certified long-term care facilities received notification of the review along with the forms to be completed. Part of the review form was completed for each Medicaid recipient before the visit by a review team. Each patient review entailed an examination of the health record, an interview with a staff member familiar with the patient, and a personal visit with the patient. Forms were completed only for Medicaid recipients who were in the facility on the day or days of the review. The information collected included sex, age, admission date, medical diagnoses, individual care plans, amount of dependency in activities of daily living, and treatment programs.

After reviewing all Medicaid recipients in a facility, the team discussed its findings with the facility's administrator, medical director, and nursing staff. Later, the facility received the individual review forms with the team's recommendations for improving care and a form for responding to these recommendations. The data were keypunched, and the Health Systems Division of the Department of Health prepared a summary report, including aggregate client profiles.

PRECISION, PREPARATION, AND COMPLETENESS
OF THE CONSOLIDATED DATA FILE

The precision of the review instrument affects the consistency of information collected for each patient. The preparation and consolidation of the data file affect the problems of creating a complete longitudinal data set and separate cross-sectional files.

Precision

Some degree of imprecision in the use of the review instru-
ment by review teams occurred. The same review teams often vis-
ited the same facilities and patients in a given area more than
once. As a result, some patients and facilities became more
familiar to some review teams, and this affected their assess-
ments. A 1976 "inter-rater reliability" study found overall a 75
percent agreement in ratings when several teams assessed the same
individuals. 2/ In that study, five pairs of teams assessed the
same 20 individuals; then, their assessments were compared, and
the percentage agreement was calculated for disabilities, medi-
cation, special treatments, special programs, and recommendations
for patients and facilities. There was some disagreement among
raters regarding individual disabilities but almost total agree-
ment on the total dependency scores (93-99 percent). The percen-
tage agreement was lowest for special treatments (49 percent).
Over all areas, percentage agreement was 75 percent, which "is
considered to be a satisfactory degree of inter-rater reli-
ability." 3/ The 75 percent figure was considered minimally
adequate for our purposes, although it does indicate some impre-
cision in the use of the review instrument.*

Preparation

The consolidated data file was prepared by the Hubert Humph-
rey Institute at the University of Minnesota by linking records
representing the same Medicaid recipient, thereby creating a lon-
gitudinal data file. This was not a straightforward process be-
cause the records were inconsistent in identifying patients' sur-
names, years of birth, Medicaid numbers, and counties of respon-
sibility. Researchers at the University of Minnesota made every
attempt to insure that records assigned the same patient sequence
number actually represented several reviews of the same client. 4/

In preliminary work, we excluded records marked by analysts
at the Hubert Humphrey Institute as garbled or exact duplicates of
other records. As a result, we began with a total of 118,022 re-
cords for the 4-year period. We wanted our final data file to re-
flect residents age 65 and older, one record a year for each Medi-
caid recipient, and persons assigned to skilled or intermediate
care. We excluded intermediate care facilities for the mentally
retarded (ICF-MR) and psychiatric hospitals (about 20 percent of
the total number of records). We also removed multiple records,
records with missing information for age, sex, or admission date,
and records with inconsistent information for the same patient.
Some records with missing values or inconsistent information were

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*Changes made after 1976 may have improved the instrument's relia-
  bility. The Department of Health focused its efforts on staff
  development, personnel orientation, and revision of the guide-
  lines for completing the review forms.

made useable after inspection of other records for the same
Medicaid recipient. A total of 80,226 records remained in the
data file. Percentage distributions for various data items were
produced from this file by using the CROSSTABS procedures of the
Statistical Package for the Social Sciences. 5/ Important aspects
of the way we handled specific data are discussed below.

Date of admission

Instructions were given to review teams in 1976 to record
each patient's first admission date to a facility. However,
since policies on recording admission date differed among individ-
ual facilities, review teams were not sure whether they were re-
cording the dates of recent readmissions or the dates of first ad-
missions. 6/ A number of patients who had several records showed
discrepancies in their year of admission. In most cases, a single
admission date was selected by choosing their earliest admission
year.

Medical diagnosis

Only three medical diagnoses from a patient's record were re-
tained for each person on the linked data set by researchers at
the Hubert Humphrey Institute. 7/ Although they were labeled pri-
mary, secondary, and tertiary, these labels are not particularly
meaningful. The physicians who indicated all relevant diagnoses
may not have ordered them (sometimes because it may have been dif-
ficult to draw a distinction). As a result, we presented percent-
ages which reflected the number of persons in a given diagnostic
category, regardless of how they were ordered on the data records.

New admissions

"New admission" was defined as a resident whose admission
year was the same as the year in which the review was conducted;
in 1977-79, it was defined as a resident who had no Medicaid re-
view record for earlier years. In 1976, there was no way to
ascertain whether a resident had a Medicaid record in 1975, but
this information was available to help define new admissions in
the 3 other years. As noted earlier, facilities differed in how
they recorded patients' admission dates. It is possible that a
few of the patients assumed to be new admissions in 1976 (selected
on the basis of year of admission) were actually Medicaid patients
in prior years yet resided in a facility with a policy of record-
ing the most recent date of admission as the year of admission.
It is not known how many patients of this type were included among
the new admission group for 1976. This may explain why the number
of new admissions was higher in 1976 than in subsequent years.

Completeness

In summary, we believe that the results of our analysis are
representative of most institutionalized Medicaid recipients age

65 and older in skilled and intermediate facilities in Minnesota
for the years 1976-79. There was no sampling of cases and the en-
tire group was included with two important exceptions. A very
small percentage of institutionalized recipients were not repre-
sented, including those still on intake, those not yet assigned a
Medicaid number, those temporarily in a hospital or elsewhere, and
those moving between facilities. Minnesota officials estimated
such persons as representing less than 1 percent of the total. 8/

Also, patients who stayed in a facility a short time (e.g.,
3 to 6 months) may not have been reviewed if they were not in the
facility on the day or days of the review. Such patients were
usually admitted to recuperate from an acute episode or injury
(e.g., stroke or fracture). However, short-stayers are more
likely to be private-paying patients or supported by Medicare
than Medicaid recipients. 9/

CHOICE OF SUMMARY DEPENDENCY MEASURE

Over the years, a number of different measures of a person's
ability to perform basic activities of daily living have been de-
veloped in different settings with different purposes. The di-
versity of such measures and non-comparable items and scoring sys-
tems have been noted by many. 10/ The Long-Term Health Care Mini-
mum Data Set was one effort to standardize the collection of this
information in long-term care settings. 11/ Another measure, one
that has been used rather widely, is the Katz index of dependency,
which focuses on six activities of daily living (eating, conti-
nence, transferring, toileting, dressing, and bathing). 12/ The
National Center for Health Statistics used this composite measure
to report results of the 1977 National Nursing Home Survey. We
were unable to use it with the Minnesota Medicaid data because the
review forms did not include separate items for continence and
toileting. After reviewing a number of other measures, we applied
the Lawton and Brody Physical Self-Maintenance Scale as a summary
measure of the dependency of Medicaid patients. Using data on
functional disabilities, the score on this scale is based on the
number of dependencies in toileting, eating, dressing, grooming,
walking, and bathing. 13/

MINNESOTA NURSING CARE TIME MEASURE

The Minnesota Department of Health adopted a scoring scheme
that assigns different points to different levels of dependency in
each of 15 functional areas. 14/ (See table 15.) The point sys-
tem corresponds to the estimated amount of nursing time needed to
care for patients with different dependencies and needs and was
based on the results of three time and motion studies. 15/ In one
of these studies, observers collected data by observing the time
required for specific nursing activities in a sample of nursing
homes. 16/ Each point was treated as equivalent to 3.5 minutes
of nursing time each day. The highest numbers of points were
assigned to feeding persons who cannot feed themselves and toilet-
ing those who are incontinent, implying that these activities

require the most nursing time each day. Taking care of a totally
disoriented person or one who is uncooperative or disruptive and
assaultive also required a great deal of time, according to the
points. Those who were independent required the least time.

     The Minnesota point system may be applied to medications and
individual treatment programs. The total point scores for these
can be added to the dependency score to yield a total score. This
score reflects an estimate of the total time needed to care for
and meet a patient's needs.

Table 15

Minnesota Department of Health Point Values
for Deriving Nursing Care Time for Fourteen
Areas of Functional Dependence

	Point value
Dressing	
0. Independent	0
1. Independent with instruction or supervision (1976, 1977: help/supervision to lay out clothes, tie shoes, slippers)	1
2. Aid of another person	3
3. Dressed completely	6
4. Never dressed	1
Grooming	
0. Independent	0
1. Independent with instruction or supervision (1976, 1977: slight preparation by someone)	2
2. Aid in 2 or 3 areas	4
3. Aid in all areas	8
Bathing	
0. Independent	0
1. Independent with instruction (1976, 1977: not an option)	2
2. Supervision only (1976: not an option)	1
3. Aid to get in and out of tub	2
4. Aid in washing	4
5. Bathed completely	8
Eating	
0. Independent	0
1. Independent with instruction (1976, 1977: not an option)	2
2. Slight help to cut meat, arrange food	2

(Table 15 continued)

	Point value
(Eating)	
3. Feeds self with help or supervision of another person	8
4. Completely fed (1976, 1977: "tube fed" was an option; scored "not applicable")	12
Bed mobility	
0. Independent	0
1. Occasional help to sit up	1
2. Always helped to sit up	4
3. Must be turned and positioned	6
Transferring	
0. Independent	0
1. Needs guidance only	1
2. Aid of one person	4
3. Needs two persons or mechanical device	8
4. Bedfast	0
Walking	
0. Independent	0
1. Independent with device	0
2. Aid of one person	3
3. Aid of two persons	6
4. Does not walk	0
Wheeling	
0. Independent	0
1. Help with ramp/elevator	1
2. Must be wheeled	2
3. Not wheeled (1976-79: "bed or chair fast" an option that receded to "not applicable")	0
Communication	
0. Normal speech	0
1. Speech impairment but can be understood	2
2. Non-verbal, written/gestures	4
3. Inappropriate content, echolalia, garbled sounds (1976: unintelligible vocal sounds)	4
4. Does not/will not speak (1976: does not speak)	4
5. Language barrier (1976: foreign language barrier)	2
Hearing	
0. Normal	0
1. Normal with hearing aid	1
2. Impairment (1976: hears loud voice without hearing aid or hears loud voice only with hearing aid)	0
3. Does not hear	2
4. Unknown (1976: not an option)	4

(Table 15 continued)

	Point value
Vision	
0. No impairment	0
1. Impairment corrected with glasses	0
2. Impairment (1976: impairment not corrected with glasses)	2
3. Blind (1976: legally blind)	4
4. Unknown (1976: not an option)	
Orientation	
0. Oriented (1976: alert)	0
1. Minor forgetfulness	3
2. Partial/intermittent periods of disorientation	5
3. Totally disoriented: does not know time, place, identity	10
4. Comatose	0
5. Unknown (1976: not an option)	0
Behavior	
0. No problem	0
1. Observation for potential problem behavior (1976: observation for potential explosive behavior)	2
2. Uncooperative, wanders, withdrawn, crying, hallucinates (1976: uncooperative, wanders, withdrawn, crying, irritable)	8
3. Disruptive/runs away	8
4. Some of above plus assaultive	10
Toileting	
0. Independent	0
1. Needs help to toilet; no incontinence	0
2. Occasional incontinence	3
3. Nocturnal incontinence only (1976: not an option)	6
4. Incontinent bladder	12
5. Incontinent bowel	12
6. Incontinent bowel and bladder or not trained (1976: incontinent bowel and bladder)	12
7. Catheter or ostomy (1977-79: not an option)	0

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STATISTICAL TERMS

The statistical tests performed on the study data are standard tests of association. The tests applied to sample data in chapter 2 are tests for the difference in two population means and tests for differences in proportions. The two tests applied to the data in chapters 3 and 4 are Pearson product-moment correlations and Spearman rank order correlations.

The test for the difference in two sample means uses a "t" score, which is computed by comparing differences in the sample means and their standard deviations and then calculating the probability that (taking sample sizes into consideration) the difference could have occurred randomly. Similarly, a "z" score is used to determine the probability that the proportion of some characteristics of one population is equal to that proportion in another. Both statistics test the assumption of equality. If the t and z scores are small, the assumption of equality cannot be rejected at a given level of significance.

Pearson correlations, symbolized by the letter "r," measure the strength of the relationship between two interval-level variables (i.e., two sets of observations which are numerical values or measures). Mathematically, r is equal to the ratio of the co-variation between the variables x and y to the square root of the product of the variation in the variables x and y.

Spearman correlation (denoted "r_s") is a nonparametric statistic and does not depend upon having either a statistically normal distribution or the metric quality of interval scales. It is defined mathematically as the sum of the squared differences in the paired ranks for two variables over all cases divided by what the sum of the squared differences in ranks would be if the two sets of ranks were totally independent. This quotient is subtracted from 1 to produce the r_s. 1/

Both the Pearson and Spearman statistics range from -1.0 to +1.0. The closer the coefficient is to 1.0, the more closely the two sets of variables are associated (values for both increase in the same direction). Thus, 1.0 represents a perfect positive association between the variables, and 0 indicates no association between the variables. The closer the coefficient is to -1.0, the stronger is the inverse relationship, indicating that one variable increases as the other decreases.

For all statistics, we have reported the associated statistical significance, which indicates the probability that the association measured occurred by chance. Significance at the .001 level, for instance, indicates that the probability of such an association occurring in randomly selected data is one in a thousand.

The regression analysis results presented in the text were generated by using the standard multiple and stepwise multiple

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linear regression program of the Statistical Package for the
Social Sciences. Multiple regression analysis shows how a set of
independent (predictor) variables relates to a single dependent
variable. It produces (1) standard regression coefficients
(betas), which represent the magnitude of the independent contri-
bution of each predictor variable to the dependent variable, (2) a
multiple correlation and its square, which represent the propor-
tion of the variance in the dependent variable accounted for by
the total set of predictors, and (3) the variance proportions con-
tributed by each predictor separately, within the total set. 2/
Stepwise analysis allows the analyst to enter variables or sets of
variables into the explanatory model in stages, so that the inde-
pendent effect of additional variables on variables already en-
tered into the analysis may be evaluated.

The reader interested in the specific technical aspects of
the computation of these statistics is referred to N. H. Nie et
al., Statistical Package for the Social Sciences, 2nd ed. (New
York: McGraw-Hill, 1975). A general discussion may also be found
in any of a number of general social statistics textbooks, such
as Social Statistics, 2nd ed., by H. Blalock, Jr. (New York:
McGraw-Hill, 1972), or Fundamentals of Behavioral Statistics, by
R. Runyon and A. Haber (Reading, Mass.: Addison Wesley, 1967).

NOTES

1/This discussion is drawn from N. H. Nie et al., Statistical
   Package for the Social Sciences, 2nd ed., McGraw-Hill, N.Y.,
   1975, pp. 280-81 and 288-90.

2/This discussion is repeated from one developed for the Bureau of
   the Census; see U.S. Department of Commerce, Bureau of the Cen-
   sus, A Profile Analysis of Minnesota Counties, Washington, D.C.,
   1979, p. 30.

DISCUSSION OF HCFA NURSING

HOME EXPENDITURE DATA

In chapter 3 and throughout the report, "Medicaid nursing home expenditures" refers to data obtained from Statistical Form 2082, which States file with the Health Care Financing Administration in the January following the end of each fiscal year. The data from Statistical Form 2082 appeared to provide the best information for our analyses, although two other sources of annual expenditure data are available at the Federal level. Because the three sources differ in reporting expenditures for SNF and ICF services, a discussion of their limitations and inconsistencies is necessary for understanding the data used in our analysis. The forms that are used to collect the data from these three sources serve different objectives and offices in HCFA, and there have been limited resources and incentives to insure that the data are reported in similar ways or to determine and note their differences. Our examination of fiscal year 1980 data reported from the Statistical Form 2082 and the HCFA-25D (discussed below) revealed discrepancies in every State, many of them considerable. In the last quarter of fiscal year 1980, States were instructed to report the same data on all three forms. However, because data we used came from before this time, the expenditure trends in this report should be considered with the following caveats.

STATISTICAL FORM 2082

Statistical Form 2082 reports Federal, State, and local Medicaid expenditures by type of medical service and is prepared primarily for a yearly counting of Medicaid recipients. Generally, a State Medicaid agency's statistical office completes this form. It is unlikely that these data match the figures submitted to HCFA by the same Medicaid agency's budget office for the same period.

We used data from this form because it attempts to disaggregate SNF, ICF, and ICF-MR expenditures consistently for fiscal years 1976-80, thus enabling us to exclude ICF-MR expenditures from our analysis. However, some States did not report ICF-MR expenditures even when their State plan had been amended, usually before 1976, to cover ICF-MR care. This indicates that ICF-MR expenditures were included with ICF expenditures in some States over the 5-year period.

The data reported for fiscal year 1980 may have been affected by changes in the reporting format and other requirements initiated by HCFA in 1980, including its offering of three optional methods for reporting the 1980 data. It became apparent to HCFA staff, while explaining the new reporting requirements to the States, that many of them had not accurately completed their forms from prior years. Moreover, missing data for Alaska resulted in the substitution of 1979 figures, and the data for Colorado, Massachusetts, New York, and Wyoming are estimates. For these reasons, and because the States were preparing their data for com-

puter files during this 5-year period, expenditure trends should
be viewed somewhat cautiously.

QUARTERLY FORM HCFA-64

The HCFA-64 form is submitted quarterly by States to HCFA for
the purpose of computing the Federal Medicaid contribution owed to
them. Statistical Form 2082 is generally submitted from statisti-
cal offices in a State's Medicaid agency, and HCFA-64 is completed
by the same agency's budget office. HCFA makes several adjust-
ments to the States' figures to determine the correct Federal
share. Until the second quarter of fiscal year 1979, expenditures
were reported (on an earlier form SRS-OA-41) for only three broad
categories of eligibility, not by type of medical service. There-
fore, it was not possible to disaggregate expenditures for SNF and
ICF care before the second quarter of fiscal year 1979. The unad-
justed Federal, State, and local Medicaid expenditures from these
forms are compiled in an annual Medicaid expenditure report by
HCFA. Due to staffing shortages, reports for fiscal years 1977,
1978, and 1979 were all published in 1980.

QUARTERLY FORM HCFA-25D

The States use the HCFA-25D form to submit current year esti-
mates as well as projected costs for the next 2 fiscal years to
HCFA. Expenditures are reported by type of medical service but
often differ from those reported for the same quarter on the HCFA-
64. In addition, it is unclear how the States derive their pro-
jected estimates.

	1976	1977	1978	1979	1980
United States	33.3	33.0	34.6	35.0	34.2
Alabama	48	46	46	44	47
Alaska[b]	46	40	43	43	43
Arkansas	53	55	55	55	41
California	20	19	23	23	22
Colorado	43	40	36	37	41
Connecticut	44	45	50	50	46
Delaware	25	29	24	30	29
D.C.	12	6	5	6	9
Florida	38	35	38	32	34
Georgia	40	37	37	38	35
Hawaii	31	37	42	40	33
Idaho	42	40	40	41	44
Illinois	28	26	26	29	27
Indiana	50	49	49	50	52
Iowa	49	45	42	41	40
Kansas	30	27	30	37	33
Kentucky	28	31	34	36	33
Louisiana	31	36	35	36	35
Maine	40	45	48	49	54
Maryland	25	27	33	34	33
Massachusetts	37	30	28	27	27
Michigan	31	30	29	27	27
Minnesota	40	43	45	48	46
Mississippi	33	36	37	35	37
Missouri	26	25	29	32	35
Montana	45	43	45	46	48
Nebraska	44	46	44	47	43
Nevada	28	40	45	44	40
New Hampshire	56	56	62	58	61
New Jersey	30	32	31	29	29

	1976	1977	1978	1979	1980
New Mexico	22	22	24	25	24
New York	33	33	38	37	36
North Carolina	27	34	30	31	31
North Dakota	54	50	52	54	54
Ohio	33	33	32	35	34
Oklahoma	46	46	42	44	40
Oregon	33	29	29	31	31
Pennsylvania	28	28	25	30	26
Rhode Island	24	26	28	33	33
South Carolina	35	36	36	41	34
South Dakota	55	52	48	49	49
Tennessee	34	34	36	37	35
Texas	50	50	48	45	43
Utah	42	47	38	37	38
Vermont	34	35	35	33	32
Virginia	33	34	37	34	34
Washington	41	36	34	36	40
West Virginia	16	20	22	25	29
Wisconsin	44	45	56	55	52
Wyoming	55	58	60	64	59

SOURCE: HCFA, Medicaid State Tables (Washington, D.C.: 1976), and unpublished
HCFA tables for 1977-80.

aExpenditures for intermediate care facilities for the mentally retarded are in-
cluded in the following States in the years indicated: Ala., Ark., Calif. (1976-
79); Conn., Fla., (1976); Hawaii (1977-79); Ill., Maine, Md. (1976-80); Mo.
(1976); Nev. (1976-77); N.H. (1976-78); N.J. (1977); Wash. (1976); W.Va. (1979).
bHCFA substituted 1979 data for 1980 data because Alaska did not report 1980 data.

NATIONAL DATA SYSTEMS REPORTING

NURSING HOME BED SUPPLY

This appendix describes three sources of nursing home bed data available at the national level in HHS: the Medicare-Medicaid Automated Certification System, the Master Facility Inventory, and the National Nursing Home Survey.

THE MEDICARE-MEDICAID AUTOMATED
CERTIFICATION SYSTEM

The Medicare-Medicaid Automated Certification System (MMACS) is maintained by the Health Standards Quality Bureau in HCFA. MMACS was established for the purposes of tracking deficiencies in nursing homes participating in Medicare and Medicaid and verifying the certification of facilities for Medicaid and Medicare billing. Recording the number of beds in facilities is a byproduct of these functions. At any point in time, MMACS can provide a running total of the number of facilities participating in Medicare and Medicaid. Although year-end totals of past years are available, monthly fluctuations are not available in annual reports, and annual averages are not computed. A major problem with this system is that facilities and beds are counted twice. For example, if a facility has two parts--one as an SNF and one as an ICF--MMACS counts it as two distinct facilities. Beds that are dually certified under Medicaid as SNF and ICF are reported as two separate beds.

In the MMACS data given us, the numbers of certified and total beds in certified facilities were also misstated because of error in tallying State and regional subtotals. For example, in 1978, all the HCFA regional totals were added incorrectly. In 1980, four of the six regional totals were incorrect. These problems mean that these data cannot be used to examine certification trends, growth, or changes in dual SNF/ICF certification.

THE MASTER FACILITY INVENTORY

The Master Facility Inventory (MFI) is a census conducted biennially by the NCHS. The MFI file contains data on several types of health facilities, including nursing homes, beginning in 1963. From 1976 to 1980, States that were members of the Cooperative Health Statistics System conducted the survey for NCHS to supplement the information received from the facilities--16 States collected the data in 1976, and 26 States collected data in 1978. The most recently published MFI State data are from the 1978 survey, although unpublished data from the 1980 MFI were available in August 1982; they are reported in appendix VIII.

The low response rates from California, New York, North Carolina, and the District of Columbia in 1978 led NCHS to substitute 1976 bed figures for these areas. The result is an understatement of the number of national nursing home beds in 1978. Another

problem in using MFI data as a measure of nursing home bed supply is that they included facilities and beds that do not qualify for participation in Medicaid or Medicare. Including, for example, domiciliary homes and personal care homes without nursing tends to inflate the reported supply of beds that could be potentially financed by Medicaid. The MFI also includes ICF-MR's, which cannot be disaggregated.

One of the problems in determining the national supply of nursing home beds from MMACS and the MFI is that they use different definitions for categorizing nursing home beds. The MFI began before the implementation of Medicare and Medicaid and has continued to use the four terms "nursing care homes," "personal care homes with nursing," "personal care homes without nursing," and "domiciliary homes," while MMACS categorizes nursing home beds by Medicaid and Medicare certification status.*

THE NATIONAL NURSING
HOME SURVEY

The NCHS periodically surveys a sample of nursing home facilities and residents. Identified as the NNHS, the latest survey was conducted in 1977, mostly on a random sample of facilities from the 1973 MFI. The data on nursing home beds and patients constitute only a sample of the total in the Nation, and information on State bed supply is unavailable. In addition, the data include many facilities that do not meet certification requirements for participating in Medicare or Medicaid. The next survey is tentatively planned for 1984; survey results will not be available until sometime later.

Because bed data are inadequate at the national level, HCFA staff, in their projections of national health expenditures for nursing home services, rely on other sources to produce estimates of bed supply. The total number of nursing home beds is estimated by using occupancy rates from the MFI and patient days, which are calculated from other data, and by using the 1977 NNHS data, which include personal care homes, as a benchmark.

Compared to the HCFA estimates, the NNHS, the MFI, and MMACS, our figures may be the lowest because of the exclusion of personal care, domiciliary, and ICF-MR beds and data from Arizona. Problems cited earlier with the MFI and MMACS may explain their variable growth patterns as well as their higher enumerations. If uncertified beds, most of which are likely to be in personal care and domiciliary homes, were excluded from the NNHS and the HCFA estimates (approximately 167,000 beds in 1977), these figures would be in line with our data. We believe that our data repre-

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*See W. Scanlon and M. Sulvetta, The Supply of Institutional Long-Term Care: Descriptive Analysis of Its Growth and Current State (Washington, D.C.: Urban Institute, December 1981), for a comparison and cross-validation of recent MMACS and MFI data.

sent the most consistent definition of nursing home beds over the
5-year period 1976-80. In addition, our data showed a more con-
sistent rate of increase compared to the MFI and MMACS data, which
both showed fluctuations from year to year.

	1976	1977	1978	1979	1980	Growth rate for longest time period
Alabama[a]	18,033	18,855	19,292	19,695	20,131	2.8
Alaska[a]	459	459	644	644	543	4.3
Arkansas	18,996	18,729	19,119	19,349	19,682	0.9
Colorado	17,948	18,190	18,042	18,248	--	0.6
Connecticut	22,238	23,822	23,589	25,098	25,387	3.4
Delaware	--	2,327	2,315	2,330	2,424	1.4
D.C.	1,856	1,154	1,185	1,278	1,130	-11.7
Florida	--	--	38,779[b]	40,365[b]	42,340[b]	4.5
Georgia	29,960	30,031	30,926	31,949	32,881	2.4
Hawaii[a]	1,753	2,433	2,857	3,135	3,239	16.6
Idaho[a]	4,189	4,348	4,331	4,331	4,558	2.1
Illinois	77,214	76,589	80,280	82,885	83,248	1.9
Indiana	16,371	16,072	24,517	24,815	25,690	11.9
Kentucky[a]	10,354	12,303	13,463	15,283	16,455	12.3
Louisiana[a]	19,446	21,266	21,697	23,040	24,083	5.5
Maine	8,070	8,606	8,775	9,145	9,693	4.7
Maryland	--	--	--	18,442	19,754	7.1
Massachusetts	--	--	44,086	44,706	45,605	1.7
Michigan[a]	39,707	40,147	40,727	41,153	41,007	0.8
Minnesota	43,179[b]	44,246[b]	43,927[b]	44,803[b]	45,637[b]	1.4
Mississippi	10,931	11,045	11,147	14,013	14,181	6.7
Montana	8,373[b]	8,581[b]	8,478[b]	8,901[b]	11,928[b]	9.3
Nebraska	17,616	18,769	18,396	18,499	17,951	0.5
New Hampshire[a]	--	5,652	5,715	5,818	6,272	3.5
New Jersey	23,500[b]	--	24,456	--	24,329	0.9

	1976	1977	1978	1979	1980	Growth rate for longest time period
New Mexico	3,181	3,221	3,447	3,845	3,463	2.1
New York[a]	94,614	95,339	95,699	96,186	96,069	0.4
North Carolina	14,560[b]	15,389[b]	16,816	18,347	19,054[b]	7.0
North Dakota[a]	5,676	5,912	5,942	6,026	6,277	2.5
South Carolina[a]	7,755	8,198	8,954	9,753	10,525	7.9
South Dakota	6,907	6,919	7,048	7,365	7,385	1.7
Tennessee[a]	20,926	21,113	21,680	23,345	24,551	4.1
Texas	86,771	90,748	92,749	95,357	96,463	2.7
Utah	4,335	4,433	5,540	5,559	5,434	5.8
Virginia	12,142	13,401	14,838	16,383	15,876	6.9
Washington	26,037	26,192	25,508	24,608	25,167	-0.8
West Virginia	--	2,548	3,682	4,736	4,808	23.6
Wyoming	2,151	2,173	2,257	2,289	2,315	1.9
Total	675,248	679,210	811,504	832,097	887,402	

[a]Year in which dual Medicare-Medicaid SNF certification began:

Alabama, 1978	Louisiana, 1979	Tennessee, 1960's
Alaska, not available	Michigan, 1976	Rhode Island, 1977
Hawaii, 1960's	New Hampshire, not available	Ohio, 1980
Idaho, 1981	New York, 1976	South Carolina, 1980
Kentucky, 1979	North Dakota, 1978	Vermont, 1980

J. Feder and W. Scanlon, Medicare and Medicaid Patients' Access to Skilled Nursing Facilities, Urban Institute, Washington, D.C., November 1981, p. 92.

[b]Total exceeds total State licensed nursing home beds.

VERIFICATION OF OUR SURVEY DATA

The type and validity of bed data available depended on individual States' reporting and information systems, which vary widely in technical capacity and comprehensiveness. However, extensive efforts were made to insure that the most reliable data were collected. Our survey process involved initial data collection by telephone, followed by a mailed return of the data to each State (except Arizona) to confirm what State officials had told us.

The mailed return included bed data for each State's several neighboring States in order to assist the State in verifying reported bed supply figures.* All States returned verified data to us, and many of the returns included substantial changes. Extensive followup telephone calls were also made to clarify additional points. After this, the data were prepared for computer files.

For the next step in verifying the nursing home bed data, we examined differences between these data and other sources. Our licensed bed data for 1976 were compared to unpublished 1976 MFI data, and our licensed bed data for 1978 were compared to the 1978 MFI and to data collected by the American Public Welfare Association in a 1980 survey on long-term care. For 1980, our licensed bed data were compared to unpublished MFI data.** Comparisons for the 3 years are presented in table 16 on the next page.

1976 COMPARISONS

Although data were available for all 50 States and the District of Columbia in the MFI, our survey includes data for only 44 States and the District of Columbia. In comparing the States with data available in both surveys (the 44 States and the District of Columbia), we reported 80,119 more beds than the MFI. This is a 6.8 percent difference between the two data sources but by State the differences exceeded 30 percent for 10 States.

1978 COMPARISONS

We compared our licensed bed data with two other sources of licensed bed data for 1978--the MFI and unpublished data from a survey conducted by the American Public Welfare Association (APWA). Because we were missing data for 5 States, we compared only our data for 44 States and the District of Columbia with the

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 *Yearly bed totals are somewhat misleading in that the States reported data for different time periods. In addition, the month in which data were reported frequently varied within the same State from year to year.

**Unpublished data used with HHS, NCHS, "An Overview of the 1980 Master Facility Inventory of Nursing and Related Care Homes," Advanced Data Report (Hyattsville, Md.: August 11, 1983).

Table 16

Nursing Home Beds 1976, 1978, and 1980[a]*

1976	GAO	MFI	1976	GAO	MFI
Alabama	18,395	17,968	Montana	7,137	4,501
Alaska	459	415	Nebraska	18,906	20,059
Arkansas	19,066	18,381	Nevada	833	1,276
California	107,680	113,122	New Hampshire	--	5,223
Colorado	17,948	21,282	New Jersey	23,460	21,298
Connecticut	22,785	21,753	New Mexico	3,181	2,453
Delaware	--	1,533	New York	94,614	87,619
D.C.	2,162	1,937	North Carolina	14,042	17,551
Florida	31,207	25,249	North Dakota	5,676	5,944
Georgia	29,960	25,426	Ohio	62,211[b]	53,473
Hawaii	1,753	2,363	Oklahoma	26,987	21,207
Idaho	4,189	5,186	Oregon	--	12,879
Illinois	81,250	73,633	Pennsylvania	66,118[c]	47,825
Indiana	33,070	31,325	Rhode Island	7,149	6,965
Iowa	27,395	25,350	South Carolina	8,190	6,582
Kansas	24,657	19,268	South Dakota	6,931	7,310
Kentucky	10,377	12,894	Tennessee	21,410	19,760
Louisiana	19,446	18,370	Texas	91,575	94,242
Maine	8,070	8,644	Utah	4,538	2,162
Maryland	--	15,012	Vermont	2,997	2,916
Massachusetts	42,147[c]	42,010	Virginia	13,223	18,031
Michigan	41,137	62,085	Washington	26,890	24,191
Minnesota	37,853	41,274	West Virginia	--	3,802
Mississippi	11,757	7,784	Wisconsin	49,497	26,924
Missouri	32,897	12,626	Wyoming	2,204	1,541
			United States	1,183,429	1,141,759

*Notes to this table are at the end of the 1980 data.

(Table 16 continued)

1978	GAO	APWA	MFI	1978	GAO	APWA	MFI
Alabama	19,654	19,955	19,246	Montana	7,315	6,090	4,320
Alaska	644	--	1,108	Nebraska	18,859	19,394	16,586
Arkansas	19,301	18,489	16,561	Nevada	1,991	2,228	1,686
California	106,932	--	138,219	New Hampshire	5,715	6,745	6,583
Colorado	18,042	--	19,228	New Jersey	24,993	27,395	37,528
Connecticut	24,169	22,900	20,189	New Mexico	3,447	2,938	2,640
Delaware	2,997	--	2,484	New York	95,699	98,128	104,523
D.C.	1,881	--	2,873	North Carolina	16,219	18,635	24,614
Florida	34,003	--	34,422	North Dakota	5,942	6,185	5,080
Georgia	30,926	--	29,768	Ohio	67,452[b]	--	52,007
Hawaii	2,857	--	3,315	Oklahoma	27,980	27,427	17,223
Idaho	4,331	4,489	4,381	Oregon	14,188	13,685	11,663
Illinois	84,316	86,319	61,487	Pennsylvania	71,653[c]	--	79,888
Indiana	34,191	35,429	41,010	Rhode Island	8,643	8,065	7,981
Iowa	29,166	29,793	33,910	South Carolina	9,440	8,861	9,427
Kansas	26,541	--	19,842	South Dakota	7,110	--	8,647
Kentucky	16,562	16,136	17,551	Tennessee	22,658	21,940	18,461
Louisiana	21,697	23,324	13,885	Texas	100,092	96,549	92,574
Maine	8,775	--	10,733	Utah	5,726	5,485	4,386
Maryland	--	17,674	19,322	Vermont	2,895	2,929	4,981
Massachusetts	45,300[c]	--	51,175	Virginia	15,479	18,085	21,008
Michigan	42,366	46,544	60,238	Washington	27,568	--	34,909
Minnesota	40,231	--	44,350	West Virginia	--	--	6,089
Mississippi	13,152	--	10,162	Wisconsin	49,562	50,810	51,138
Missouri	34,773	--	40,588	Wyoming	2,310	1,962	1,982
				United States	1,275,059	767,185	1,341,971

(Table 16 continued)

1980	GAO	MFI	1980	GAO	MFI
Alabama	20,548	20,412	Montana	7,617	5,577
Alaska	543	1,029	Nebraska	18,883	18,566
Arkansas	19,942	18,957	Nevada	2,146	1,967
California	108,221	100,409[d]	New Hampshire	6,272	6,476
Colorado	--	16,619	New Jersey	25,389	37,211
Connecticut	26,004	19,489	New Mexico	3,463	2,973
Delaware	3,747	2,496	New York	96,069	112,600
D.C.	1,921	2,755	North Carolina	18,588	32,046
Florida	36,888	35,640	North Dakota	6,277	6,476
Georgia	32,881	29,922	Ohio	71,868[b]	76,178
Hawaii	3,239	2,761	Oklahoma	30,977	26,404
Idaho	4,558	4,322	Oregon	14,723	17,270
Illinois	87,284	85,196	Pennsylvania	78,687[c]	75,098
Indiana	38,309	44,473	Rhode Island	8,714	8,622
Iowa	31,277	33,688	South Carolina	10,812	11,847
Kansas	27,087	24,708	South Dakota	7,453	8,647[e]
Kentucky	19,328	25,429	Tennessee	26,317	21,654
Louisiana	24,083	21,572	Texas	104,154	98,003
Maine	9,693	10,811	Utah	5,572	4,840
Maryland	21,169	20,190	Vermont	--	4,619
Massachusetts	46,538[c]	54,436	Virginia	17,578	26,366
Michigan	42,730	59,432[f]	Washington	26,851	36,690
Minnesota	41,555	40,762	West Virginia	5,394	6,383
Mississippi	15,042	12,245	Wisconsin	53,247	48,782
Missouri	40,078	45,225	Wyoming	2,368	1,742
			United States	1,352,034	1,429,888

(Table 16 continued)

SOURCE: MFI = HHS, NCHS, "Inpatient Health Facilities Statistics United States, 1978,"
          Vital and Health Statistics, Series 14, No. 24, Hyattsville, Md., March 1981,
          p. 15, and unpublished data for 1976 and 1980.   APWA = unpublished data from
          the American Public Welfare Association, Washington, D.C., January 1981.

[a]GAO data = licensed beds; MFI data = certified and noncertified beds; and APWA data =
 licensed beds.
[b]Includes beds in rest homes.
[c]Includes beds in intermediate care facilities for the mentally retarded.
[d]Excludes beds in residential care facilities.
[e]Data are from the 1978 MFI.
[f]Excludes beds in adult foster care homes.

MFI. We reported only about 200 more beds than the MFI, a differ-
ence of less than one half of 1 percent.* However, differences
for 8 States exceeded 30 percent.

Data were available for comparing our data and those of the
APWA for only 31 States. Our bed data agreed most closely State
by State with the licensed bed data collected by the APWA survey.
The APWA total bed figure exceeded our total by about 7,200 beds,
a difference of 1 percent. None of the 31 States differed more
than 20 percent.

1980 COMPARISONS

For 1980, our licensed bed data were compared to unpublished
data from the 1980 MFI. Although data were available from all 50
States and the District of Columbia in the MFI, data were avail-
able in only 46 States and the District of Columbia in our survey.
In comparing the data available from both surveys (the 46 States
and the District of Columbia), we found that the MFI bed total ex-
ceeded our total by 55,452 beds. This was a difference of 4.1
percent.** Nine States differed by more than 30 percent.

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*MFI bed totals reported for Calif., N.Y., N.C., and D.C. were
 excluded from this analysis because they were 1976 figures sub-
 stituted for data missing in 1978. Had these four areas been
 included, the total number of beds would have differed to a
 greater extent between the two data sources. The fifth State
 excluded was W.Va. because it did not report 1978 data in our
 survey.

**Residential care facility beds were excluded in the MFI total
  for Calif., and adult foster care home beds were excluded in
  Mich.

	1980 variables				% annual growth rate 1976-79			
	Beds/ 1,000 65+	% of Medicaid for SNF and ICF	% pop. 65+	% elderly 85+	Age 75+	Nursing home beds	Medicaid SNF and ICF $[a]	Total Medicaid $
United States	54	34.2	11.3	8.8	2.7	2.8[b]	15.3	13.3
Alabama	47	47	11.3	7.7	3.3	3.3	11.3	15.2
Alaska	45	43	3.0	8.3	0.0	12.0	34.0	36.4
Arkansas	64	41	13.6	8.3	3.2	0.9	19.7	18.2
Calfornia	45	22	10.2	9.0	3.0	-0.6	19.6	13.7
Colorado	76[c]	41	8.5	9.7	3.0	0.6	9.2	15.0
Connecticut	71	46	11.7	9.9	2.3	4.1	20.0	15.4
Delaware	64	29	9.9	8.5	1.6	--	36.6	28.9
D.C.	26	9	11.6	8.1	1.2	-4.5	-12.7	9.7
Florida	22	34	17.3	6.9	5.9	4.4	16.9	24.7
Georgia	64	35	9.5	7.5	3.3	2.2	13.8	16.1
Hawaii	43	33	7.9	7.9	7.7	21.4	27.5	17.7
Idaho	48	44	10.0	8.5	3.1	1.1	12.5	13.5
Illinois	69	27	11.0	9.1	1.7	2.3	11.9	10.1
Indiana	66	52	10.7	9.2	2.0	4.9	15.4	15.2
Iowa	81	40	13.3	11.6	1.2	2.9	12.9	20.0
Kansas	89	33	12.9	10.8	1.6	1.3	17.0	9.4
Kentucky	47	33	11.2	8.5	2.1	20.0	31.0	19.8
Louisiana	60	35	9.6	7.4	3.1	5.8	27.1	21.3
Maine	69	54	12.5	9.9	2.5	4.3	25.0	17.0
Maryland	53	33	9.4	8.3	3.3	--	16.4	4.5
Massachusetts	64	27	12.7	10.2	1.7	3.1	8.2	19.8
Michigan	47	27	9.9	9.0	2.4	1.4	8.6	13.7
Minnesota	87	46	11.8	11.0	2.1	2.4	21.4	14.1
Mississippi	52	37	11.5	8.3	2.8	7.1	24.1	21.2
Missouri	62	35	13.2	9.4	2.0	2.8	34.2	25.7

| | 1980 variables | | | | % annual growth rate 1976-79 | | | |
	Beds/ 1,000 65+	% of Medicaid for SNF and ICF	% pop. 65+	% elderly 85+	Age 75+	Nursing home beds	Medicaid SNF and ICF $[a]	Total Medicaid $
Montana	90	48	10.8	10.6	1.1	2.3	21.0	19.6
Nebraska	91	43	13.1	11.7	1.5	0.1	20.1	17.5
Nevada	33	40	8.3	6.1	8.7	35.7	31.8	12.8
New Hampshire	61	61	11.2	9.7	2.8	--	24.1	22.8
New Jersey	30	29	11.7	8.4	2.3	2.4	16.3	17.8
New Mexico	30	24	8.9	7.8	5.9	6.5	22.6	17.8
New York	44	36	12.3	8.9	1.5	0.6	9.1	4.9
North Carolina	31	31	10.2	7.5	4.0	8.5	30.4	25.5
North Dakota	78	54	12.3	10.0	2.2	2.0	18.9	19.0
Ohio	61	34	10.8	9.2	1.7	3.3	17.0	14.7
Oklahoma	82	40	12.4	9.0	2.7	1.6	14.1	15.8
Oregon	49	31	11.5	9.2	3.1	--	17.5	20.0
Pennsylvania	51	26	12.9	8.5	2.1	3.9	17.8	14.5
Rhode Island	69	33	13.4	9.4	2.2	7.3	28.2	15.8
South Carolina	38	34	9.2	7.0	4.0	7.3	28.7	22.6
South Dakota	82	49	13.2	11.0	1.8	2.4	20.0	25.1
Tennessee	51	35	11.3	7.9	3.4	4.0	24.8	22.3
Texas	76	43	9.6	8.7	3.7	3.8	9.8	13.8
Utah	51	38	7.5	8.3	3.7	7.7	26.2	31.3
Vermont	52[c]	32	11.4	10.3	3.1	-0.8	11.7	12.7
Virginia	35	34	9.4	8.1	3.1	8.2	21.4	20.3
Washington	62	40	10.4	9.5	3.1	-0.1	12.1	17.7
West Virginia	23	29	12.2	8.0	1.6	--	34.0	15.7
Wisconsin	94	52	12.0	9.9	2.5	0.4	21.9	13.6
Wyoming	64	59	7.9	8.1	11.5	2.0	25.5	19.0

SOURCE: U.S. Department of Commerce, Bureau of the Census and HCFA, <u>Medicaid State</u>
<u>Tables</u> (Washington, D.C.: 1976), and unpublished HCFA tables for 1979-80.

aIncludes expenditures for intermediate care facilities for one or both years in
Ala., Ark., Calif., Conn., Fla., Hawaii, Ill., Maine, Md., Mo., Nev., N.H., Wash.,
W.Va.
bBased on data for 45 States.
cData for 1979.

	1976	1977	1978	1979	1980		1976	1977	1978	1979	1980
United States	10.7	10.9	11.0	11.2	11.3						
Alabama	10.6	10.8	10.7	11.2	11.3	Montana	10.2	10.3	10.4	10.6	10.8
Alaska	2.2	2.2	2.4	2.5	3.0	Nebraska	12.7	12.8	12.9	13.0	13.1
Arkansas	13.2	13.3	13.5	13.8	13.6	Nevada	7.7	8.0	8.4	8.7	8.3
California	9.8	10.0	10.1	10.2	10.2	New Hampshire	11.0	10.9	11.0	11.0	11.2
Colorado	8.4	8.5	8.6	8.6	8.5	New Jersey	10.8	11.0	11.3	11.5	11.7
Connecticut	10.7	10.9	11.2	11.4	11.7	New Mexico	8.0	8.3	8.6	8.8	8.9
Delaware	8.9	9.1	9.4	9.8	9.9	New York	11.5	11.6	11.8	12.0	12.3
D.C.	10.2	10.5	10.7	11.1	11.6	North Carolina	9.4	9.6	9.9	10.2	10.2
Florida	16.6	17.1	17.6	18.1	17.3	North Dakota	11.6	11.8	11.9	12.2	12.3
Georgia	8.9	9.1	9.3	9.5	9.5	Ohio	10.2	10.3	10.5	10.6	10.8
Hawaii	6.8	7.1	7.4	7.7	7.9	Oklahoma	12.3	12.4	12.5	12.6	12.4
Idaho	9.7	9.8	9.9	10.1	10.0	Oregon	11.5	11.5	11.6	11.6	11.5
Illinois	10.5	10.6	10.7	10.9	11.0	Pennsylvania	11.9	12.2	12.4	12.7	12.9
Indiana	10.2	10.3	10.4	10.6	10.7	Rhode Island	12.5	12.6	13.0	13.2	13.4
Iowa	12.8	12.9	13.0	13.1	13.3	South Carolina	8.4	8.6	8.9	9.2	9.2
Kansas	12.5	12.6	12.7	12.7	12.9	South Dakota	12.5	12.8	12.9	13.1	13.2
Kentucky	10.9	11.0	11.1	11.1	11.2	Tennessee	10.7	10.8	11.0	11.2	11.3
Louisiana	9.1	9.2	9.3	9.4	9.6	Texas	9.5	9.6	9.7	9.7	9.6
Maine	11.9	12.0	12.2	12.3	12.5	Utah	7.7	7.7	7.7	7.8	7.5
Maryland	8.5	8.7	8.9	9.2	9.4	Vermont	11.1	11.2	11.3	11.4	11.4
Massachusetts	11.8	12.0	12.1	12.3	12.7	Virginia	8.7	8.9	9.0	9.3	9.4
Michigan	9.2	9.3	9.5	9.6	9.9	Washington	10.4	10.5	10.6	10.6	10.4
Minnesota	11.3	11.4	11.5	11.6	11.8	West Virginia	11.7	11.8	11.9	12.0	12.2
Mississippi	10.9	11.0	11.2	11.4	11.5	Wisconsin	11.3	11.5	11.6	11.8	12.0
Missouri	12.7	12.9	12.9	13.0	13.2	Wyoming	8.7	8.6	8.5	8.0	7.9

SOURCE: U.S. Department of Commerce, Bureau of the Census, Washington, D.C.

SELECTED STATEWIDE MEDICAID NURSING

HOME DAILY RATES 1976-79

	SNF	ICF[a] High	ICF[a] Low	Dual[b]	All[c]	Other
1976 Average						
Colorado					$16.00	
D.C.	$16.50	$14.00				
Hawaii	32.47	21.85				
Idaho		16.45		$18.09	18.34	$22.88[d]
Kansas	19.21	13.47				
Maine		22.27				
Maryland	18.40	17.38				
Massachusetts[e]	26.40	19.48				
Montana					18.13	
Nevada[e]	24.22	21.49				
New York	42.68	27.38				
North Dakota	20.36	13.19				
Utah	22.85	17.38				
Vermont					26.25	
Virginia	34.16	21.75				
Washington	17.85	13.74		16.92		
West Virginia	26.61	17.60				
1976 Maximum						
Arkansas[e]	19.53	15.71	$13.35			
Delaware						f
Florida	20.71	18.41	16.44			
Iowa		19.00				
Kentucky[g]	30.64	18.00				
Michigan[h]	22.85	21.05				
Mississippi	19.00	17.00				
Nebraska[i]	17.38	12.28				14.92[a]
New Mexico	38.79	21.87				
North Carolina	28.00	23.30				
Ohio	26.00	22.00				
Oregon	21.59	18.84				
Rhode Island	25.00	20.00	15.00			
Tennessee	30.00	21.00				
1976 Uniform						
California	22.27	17.64				
Louisiana	18.47	16.35	13.83			
Oklahoma	16.67	14.83				
Texas	23.37	18.89	14.60		17.38	
Wyoming	18.95	17.06				

*Notes to this appendix are at the end of the 1979 data.

	SNF	ICF[a] High	ICF[a] Low	Dual[b]	All[c]	Other
1977 Average						
Colorado					$17.76	
D.C.	$30.54					
Georgia[e]	22.81	$18.50		$20.48		$24.17[d]
Hawaii	37.53	26.90				
Idaho		16.63		$20.51	21.15	$24.74[d]
Illinois[e]					17.15	
Kansas	20.14	14.45				
Maine		24.25				
Maryland	19.86	17.56				
Minnesota[e]	25.83	20.77	$14.83			
Missouri[e]		19.31		23.56		
Montana					21.17	
Nevada[e]	28.73	24.26				
New York	44.48	27.37				
North Dakota	21.77	14.17				
South Dakota	17.49	14.66				
Utah	27.07	22.82				
Vermont					27.30	
Virginia	35.38	23.33				
Washington	18.85	14.95		17.89		
West Virginia	27.30	18.54				
Wisconsin	26.94	22.22	21.81			15.96[a]
1977 Maximum						
Arkansas[e]	20.09	16.55	14.40			
Delaware						f
Florida	23.38	21.70	18.54			
Iowa		19.50				
Kentucky[g]	32.88	22.00				
Michigan[h]	24.55	23.35				
Mississippi	20.50	18.35		21.00		
Nebraska[i]	18.96	13.57				18.19[a]
New Mexico	47.05	24.89				
North Carolina	28.00	23.30				
Ohio	26.00	22.00				
Oregon	23.13	20.18				
Rhode Island	27.50	26.00	16.50			
Tennessee	30.00	21.00				
1977 Uniform						
California	24.81	19.72				
Louisiana	22.12	17.84	14.52			
Oklahoma	17.50	15.67				
Texas	24.55	19.67	15.37		18.12	
Wyoming	20.97	18.87				

	SNF	ICF[a] High	ICF[a] Low	Dual[b]	All[c]	Other
1978 Average						
Colorado					$19.68	
Connecticut	$31.84	$20.72				
D.C.	50.13	50.73				
Georgia[e]	25.03	19.98		$22.60		$26.41[d]
Hawaii	44.22	36.70				
Idaho		16.63		23.95	24.92	28.20[d]
Illinois[e]	25.64	18.30			19.55	
Kansas	23.83	17.42				
Maine		26.50				
Maryland	21.41	20.27				
Minnesota[e]	29.23	23.81	$16.77			
Missouri[e]		21.56		27.97		
Montana					26.18	
Nevada[e]	33.79	28.87				
New Jersey	35.73	34.23	27.19			
New York	49.65	31.68				
North Dakota	23.38	17.50				
South Dakota	19.10	16.98				
Utah	30.98	26.55				
Vermont					30.21	
Virginia	38.69	24.83				
Washington				21.85		
Wisconsin	29.89	24.59	24.18			17.94[a]
1978 Maximum						
Alabama	24.00	20.44		22.87		
Arkansas[e]	24.47	20.53	18.74			
Delaware						f
Florida	22.58	23.47	19.89			
Iowa		20.80				
Kentucky[g]	36.11	24.00				
Michigan[h]	26.90	25.90				
Mississippi	24.50	21.75		24.25		
Nebraska[i]	23.38	15.40				18.24[a]
New Hampshire	35.00	29.00				
New Mexico	58.93	27.66				
North Carolina	34.19	25.43				
Ohio	31.00	26.00				
Oregon	25.60	22.43				
Rhode Island	32.88	23.48	19.18	32.42		25.23[a]
Tennessee	32.80	22.40				
Wyoming				27.12		
1978 Uniform						
California	28.49	22.90				
Louisiana	23.58	21.40	15.32			
Oklahoma	19.00	18.00				
Texas	26.86	20.78	18.66		20.02	

	SNF	ICF[a] High	ICF[a] Low	Dual[b]	All[c]	Other
1979 Average						
Alaska		$86.79				
Colorado					$22.54	
Connecticut	$35.77	24.76				
D.C.	55.54	55.70				
Georgia[e]	26.90	21.89		$25.33		$30.01[d]
Hawaii	49.82	38.90				
Idaho		19.24		26.70	27.48	32.48[d]
Illinois[e]	27.57	19.68			21.49	
Kansas	25.48	19.99				
Maryland				22.82		
Massachusetts[e]	40.51	26.39				
Minnesota[e]	33.17	27.01	$19.21			
Montana					27.92	
Nevada[e]	37.40	32.71				
New York	55.35	34.29				
South Carolina				30.92		
South Dakota	20.94	19.15				
Utah	33.36	27.15				
Vermont					32.80	
Virginia	39.71	28.08				
Washington				27.87		
Wisconsin	33.93	27.80	27.84			20.50[a]
1979 Maximum						
Alabama	27.11	22.81		24.89		
Arkansas[e]	27.49	22.77	20.90			
Delaware						f
Florida	29.95	27.58	23.67			
Iowa		22.27				
Kentucky[g]	40.11	27.00				
Michigan[h]	28.74	27.74				
Mississippi	25.51	21.45		25.00		31.85[d]
Nebraska[i]	25.08	17.36				20.72[a]
New Mexico	59.16	29.11				
Ohio	35.30	26.00				
Oregon	30.67	24.26				
Rhode Island	28.31	26.36	21.20	36.52		29.93[a]
Tennessee	36.20	25.30				
Wyoming				31.96		
1979 Uniform						
California	30.94	24.91				
Louisiana	26.73	24.43	19.37			
Oklahoma	21.15	20.02				
Texas	28.68	22.94	20.64		22.04	

aSome States reported two ICF rates, a higher and a lower. "Other"
 ICF rates reported were a third rate (R.I. and Wis.) and a metro-
 politan rate (Nebr).
bRates combining SNF and ICF care.
cState-reported averages of all facility rates.
dA rate paid to hospital-based facilities.
eRates are an average of more than one level of care or more than
 one peer group or both in Ark., Ga., Minn., Mo., Nev., and Pa.
 Also, rates for Pa. are for operating costs only, rates are aver-
 ages excluding facilities that provide more than one level of
 care in Mass., estimated averages in Ill., and averages from HCFA
 data for Vt.
fTwo rates for government-owned and proprietary facilities, respec-
 tively: $52.89 and $25.31 (1976), $53.90 and $25.80 (1977),
 $66.72 and $30.46 (1978), and $60.21 and $35.68 (1979).
gSNF rates are average and ICF rates are maximum.
hRates exclude an allowance on plant costs for new facilities.
iOperating costs only.

| | 1976 | | 1977 | | 1978 | | 1979 | |
	SNF	ICF	SNF	ICF	SNF	ICF	SNF	ICF
United States	53	47	50	50	50	50	47	53
Alabama	67	33	63	37	51	49	44	56
Alaska	34	66	31	69	33	67	20	80
Arkansas	21	79	15	85	14	86	23	77
California	94	6	95	5	95	5	94	6
Colorado	37	63	41	59	40	60	37	63
Connecticut	92	8	95	5	90	10	89	11
Delaware	6	94	4	96	4	96	3	97
D.C.	22	78	20	80	22	78	16	84
Florida	87	13	54	46	47	53	45	55
Georgia	57	43	44	56	39	61	37	63
Hawaii	76	24	64	36	55	45	55	45
Idaho	35	65	37	63	38	62	40	60
Illinois	31	69	29	71	26	74	26	74
Indiana	26	74	23	77	23	77	24	76
Iowa	1	99	1	99	1	99	1	99
Kansas	8	92	6	94	4	96	3	97
Kentucky	52	48	40	60	34	66	29	71
Louisiana	4	96	5	95	3	97	3	97
Maine	4	96	4	96	5	95	5	95
Maryland	49	51	49	51	38	62	a	b
Massachusetts	45	55	43	57	45	55	49	51
Michigan	60	40	59	41	59	41	56	44
Minnesota	51	49	54	46	57	43	60	40
Mississippi	86	14	84	16	79	21	73	27
Missouri	25	75	11	89	2	98	2	98
Montana	57	43	35	65	14	86	8	92
Nebraska	7	93	10	90	12	38	12	38
Nevada	69	31	67	33	48	52	7	93
New Hampshire	8	92	4	96	3	97	4	96
New Jersey	6	94	5	95	5	95	6	94

	1976		1977		1978		1979	
	SNF	ICF	SNF	ICF	SNF	ICF	SNF	ICF
New Mexico	1	99	2	98	4	96	5	95
New York	74	26	72	28	68	32	67	33
North Carolina	51	49	44	56	47	53	45	55
North Dakota	65	35	64	36	65	35	63	37
Ohio	61	39	65	35	65	35	64	36
Oklahoma	a	b	a	b	a	b	a	b
Oregon	5	95	6	94	10	90	11	89
Pennsylvania	76	24	71	29	69	31	51	49
Rhode Island	44	56	38	62	22	78	8	92
South Carolina	72	28	67	33	69	31	41	59
South Dakota	42	58	28	72	16	84	12	88
Tennessee	1	99	1	99	3	97	3	97
Texas	8	92	19	91	10	90	9	91
Utah	42	58	33	67	40	60	33	67
Vermont	13	87	9	91	5	95	5	95
Virginia	8	92	8	92	7	93	7	93
Washington	90	10	80	20	77	23	67	33
West Virginia	4	96	1	99	b	c	b	c
Wisconsin	47	53	51	49	71	29	79	21
Wyoming	57	43	39	61	31	69	24	76

SOURCE: HCFA, Medicaid State Tables (Washington, D.C.: 1976), and unpublished HCFA tables for 1977-79.

aNursing home expenditures include intermediate care facilities for the mentally retarded in the following States in the years indicated: Ala., Ark., Calif. (1976-79); Conn., Fla. (1976); Hawaii (1977-79); Ill., Maine, Md. (1976-79); Mo. (1976); Nev. (1976-77); N.H. (1976-78); N.J. (1977); Wash. (1976); W.Va. (1979). The expenditure distribution between SNF and ICF care seems not to reflect relative expenditures for these two levels of care as defined in chapter 1.
bLess than 1 percent.
cMore than 99 percent.

DEPARTMENT OF HEALTH & HUMAN SERVICES   Office of Inspector General

JUN 17 1983

Mr. Richard L. Fogel
Director, Human Resources
  Division
U. S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Fogel:

The Secretary asked that I respond to your request of May 17
for our comments on your draft report entitled, "Medicaid and
Nursing Home Care Across the States." We have carefully
reviewed your report and have no comment other than to say that
your report has and will make a significant contribution toward
our current efforts in understanding better the trends in
nursing home utilization and expenditures.

Program officials did note some technical inaccuracies with your
report which were communicated to your staff.

Thank you for the opportunity to comment on this draft report before
its publication.

                              Sincerely yours,

                              Richard P. Kusserow
                              Inspector General

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