

Changes in the Medicaid Community Population: 1987-96

Research #9Findings



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Abstract

This report uses data from MEPS (Medical Expenditure Panel Survey) and NMES (National Medical Expenditure Survey) to compare the composition of the noninstitutionalized Medicaid population in 1996 and 1987. The Medicaid community population grew significantly over this time period, at the same time as a number of expansions in eligibility rules extended Medicaid coverage to people not receiving cash assistance. In both years, children, the elderly, minorities, and the nonworking population were more likely than others to be enrolled in Medicaid, as were the sick and disabled. Children made up nearly half of the Medicaid community population in both years. The composition of the Medicaid community population shifted slightly but significantly over the decade. There were relatively higher proportions of whites and men and relatively

lower proportions of women and blacks in 1996 than in 1987. The proportion of the total Medicaid community population made up of non-elderly adults fell during this time period, but a much greater proportion of these non-elderly Medicaid adults were employed in 1996 than in 1987. Also, in 1996 many more of the parents of Medicaid-enrolled children worked. These shifts have significant implications for the administration of Medicaid.

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The Medical Expenditure Panel Survey (MEPS)

Background

The Medical Expenditure Panel Survey (MEPS) is conducted to provide nationally representative estimates of health care use, expenditures, sources of payment, and insurance coverage for the U.S. civilian noninstitutionalized population. MEPS also includes a nationally representative survey of nursing homes and their residents. MEPS is cosponsored by the Agency for Health Care Policy and Research (AHCPR) and the National Center for Health Statistics (NCHS).

MEPS comprises four component surveys: the Household Component (HC), the Medical Provider Component (MPC), the Insurance Component (IC), and the Nursing Home Component (NHC). The HC is the core survey, and it forms the basis for the MPC sample and part of the IC sample. The separate NHC sample supplements the other MEPS components. Together these surveys yield comprehensive data that provide national estimates of the level and distribution of health care use and expenditures, support health services research, and can be used to assess health care policy implications.

MEPS is the third in a series of national probability surveys conducted by AHCPR on the financing and use of medical care in the United States. The National Medical Care Expenditure Survey (NMCES) was conducted in 1977, the National Medical Expenditure Survey (NMES) in 1987. Beginning in 1996, MEPS continues this series with design enhancements and efficiencies that provide a more current data resource to capture the changing dynamics of the health care delivery and insurance system.

The design efficiencies incorporated into MEPS are in accordance with the Department of Health and Human Services (DHHS) Survey Integration Plan of June 1995, which focused on consolidating DHHS surveys, achieving cost efficiencies, reducing respondent burden, and enhancing analytical capacities. To accommodate these goals, new MEPS design features

include linkage with the National Health Interview Survey (NHIS), from which the sample for the MEPS HC is drawn, and enhanced longitudinal data collection for core survey components. The MEPS HC augments NHIS by selecting a sample of NHIS respondents, collecting additional data on their health care expenditures, and linking these data with additional information collected from the respondents' medical providers, employers, and insurance providers.

Household Component

The MEPS HC, a nationally representative survey of the U.S. civilian noninstitutionalized population, collects medical expenditure data at both the person and household levels. The HC collects detailed data on demographic characteristics, health conditions, health status, use of medical care services, charges and payments, access to care, satisfaction with care, health insurance coverage, income, and employment.

The HC uses an overlapping panel design in which data are collected through a preliminary contact followed by a series of five rounds of interviews over a $2\frac{1}{2}$ -year period. Using computer-assisted personal interviewing (CAPI) technology, data on medical expenditures and use for 2 calendar years are collected from each household. This series of data collection rounds is launched each subsequent year on a new sample of households to provide overlapping panels of survey data and, when combined with other ongoing panels, will provide continuous and current estimates of health care expenditures.

The sampling frame for the MEPS HC is drawn from respondents to NHIS, conducted by NCHS. NHIS provides a nationally representative sample of the U.S. civilian noninstitutionalized population, with oversampling of Hispanics and blacks.

Medical Provider Component

The MEPS MPC supplements and validates information on medical care events reported in the MEPS HC by contacting medical providers and pharmacies identified by household respondents. The MPC sample includes all hospitals, hospital physicians, home health agencies, and pharmacies reported in the



HC. Also included in the MPC are all office-based physicians:

- Providing care for HC respondents receiving Medicaid.
- Associated with a 75-percent sample of households receiving care through an HMO (health maintenance organization) or managed care plan.
- Associated with a 25-percent sample of the remaining households.

Data are collected on medical and financial characteristics of medical and pharmacy events reported by HC respondents, including:

- Diagnoses coded according to ICD-9 (9th Revision, International Classification of Diseases) and DSM-IV (Fourth Edition, *Diagnostic and Statistical Manual of Mental Disorders*).
- Physician procedure codes classified by CPT-4 (Current Procedural Terminology, Version 4).
- Inpatient stay codes classified by DRG (diagnosisrelated group).
- Prescriptions coded by national drug code (NDC), medication names, strength, and quantity dispensed.
- Charges, payments, and the reasons for any difference between charges and payments.

The MPC is conducted through telephone interviews and mailed survey materials.

Insurance Component

The MEPS IC collects data on health insurance plans obtained through employers, unions, and other sources of private health insurance. Data obtained in the IC include the number and types of private insurance plans offered, benefits associated with these plans, premiums, contributions by employers and employees, and employer characteristics.

Establishments participating in the MEPS IC are selected through four sampling frames:

- A list of employers or other insurance providers identified by MEPS HC respondents who report having private health insurance at the Round 1 interview.
- A Bureau of the Census list frame of private-sector business establishments.
- The Census of Governments from the Bureau of the Census.

 An Internal Revenue Service list of the selfemployed.

To provide an integrated picture of health insurance, data collected from the first sampling frame (employers and other insurance providers) are linked back to data provided by the MEPS HC respondents. Data from the other three sampling frames are collected to provide annual national and State estimates of the supply of private health insurance available to American workers and to evaluate policy issues pertaining to health insurance.

The MEPS IC is an annual panel survey. Data are collected from the selected organizations through a prescreening telephone interview, a mailed questionnaire, and a telephone followup for nonrespondents.

Nursing Home Component

The 1996 MEPS NHC was a survey of nursing homes and persons residing in or admitted to nursing homes at any time during calendar year 1996. The NHC gathered information on the demographic characteristics, residence history, health and functional status, use of services, use of prescription medications, and health care expenditures of nursing home residents. Nursing home administrators and designated staff also provided information on facility size, ownership, certification status, services provided, revenues and expenses, and other facility characteristics. Data on the income, assets, family relationships, and caregiving services for sampled nursing home residents were obtained from next-of-kin or other knowledgeable persons in the community.

The 1996 MEPS NHC sample was selected using a two-stage stratified probability design. In the first stage, facilities were selected; in the second stage, facility residents were sampled, selecting both persons in residence on January 1, 1996, and those admitted during the period January 1 through December 31.

The sampling frame for facilities was derived from the National Health Provider Inventory, which is updated periodically by NCHS. The MEPS NHC data were collected in person in three rounds of data collection over a $1\frac{1}{2}$ -year period using the CAPI system. Community data were collected by telephone using computer-assisted telephone interviewing (CATI) technology. At the end of three rounds of data collection,



the sample consisted of 815 responding facilities, 3,209 residents in the facility on January 1, and 2,690 eligible residents admitted during 1996.

Survey Management

MEPS data are collected under the authority of the Public Health Service Act. They are edited and published in accordance with the confidentiality provisions of this act and the Privacy Act. NCHS provides consultation and technical assistance.

As soon as data collection and editing are completed, the MEPS survey data are released to the public in staged releases of summary reports and microdata files. Summary reports are released as printed documents and electronic files. Microdata files are released on CD-ROM and/or as electronic files.

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Additional information on MEPS is available from the MEPS project manager or the MEPS public use data manager at the Center for Cost and Financing Studies, Agency for Health Care Policy and Research, 2101 East Jefferson Street, Suite 500, Rockville, MD 20852 (301-594-1406).



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Changes in the Medicaid Community Population: 1987-96

by Jessica S. Banthin, Ph.D., and Joel W. Cohen, Ph.D., Agency for Health Care Policy and Research

Introduction

Medicaid is the main public program for providing health insurance coverage to poor and low-income Americans. Traditionally, the population served by Medicaid has also tended to be in poorer health than higher income segments of the population (Cohen, Cornelius, Hahn, et al., 1994). Over the past decade, however, there have been many changes in the Medicaid community population, which is defined here as Medicaid enrollees among the U.S. civilian noninstitutionalized population. The size of the

The proportion of children covered by Medicaid rose from 13 percent in 1987 to almost 21 percent in 1996. community population served by Medicaid grew significantly in the past decade, from 7.3 percent of the U.S. civilian noninstitutionalized population in the first part of 1987 to 11.9 percent in the first part of 1986. In the first part of 1987, Medicaid covered an estimated 17.5 million people, compared with 31.4 million in the first part of 1996. This growth occurred at

the same time that numerous Federal and State legislative initiatives have expanded Medicaid eligibility beyond the traditional populations served—people receiving cash assistance.

This report describes the demographic, health status, and employment characteristics of the Medicaid community population in the first part of 1996. It also examines how the Medicaid population changed in terms of demographic and employment measures between the first part of 1987 and the first part of 1996. Data for this report were derived from the 1996 Medical Expenditure Panel Survey (MEPS) Household Component (HC) and the 1987 National Medical Expenditure Survey (NMES) Household Survey.

With the increase in the size of the Medicaid program have also come changes in the composition of the enrolled Medicaid community population. These changes can have important implications for the mix of services paid for by Medicaid, the move to managed care plans, and the success of outreach efforts. Changes in the format of questions on general perceived health status and limitations in work, school, and housework between the 1987 NMES and the 1996 MEPS preclude the direct comparison of changes in health status. Therefore, this report cannot provide direct comparisons of health status measures between early 1987 and early 1996. However, the data show that in the first part of 1996 the Medicaid program continued to serve a population that was in poorer health than the overall U.S. community population.

Many factors are responsible for shifts in the size and composition of the Medicaid community population over time. These factors can be broadly grouped into three categories: programmatic, demographic, and general economic trends. The most immediate and significant expansions in Medicaid coverage rates are often related to changes in program eligibility criteria or administrative practices. Other factors, however, such as larger relative increases in the number of young children in the United States or a drop in the unemployment rate, also can affect Medicaid coverage rates by changing the size of the pool of potentially eligible Medicaid enrollees. It is not the intention of this report to break down the causes of increases in the Medicaid population. However, a brief summary of the main legislative changes is useful for understanding the fluctuations in the Medicaid community population between 1987 and 1996.

Expansions in Medicaid Eligibility Criteria

Until the mid-1980s, Medicaid coverage for the community population was largely limited to poor women, children, and disabled people receiving cash

 $^{^{\}mathrm{l}}$ The institutionalized Medicaid population has been excluded from this analysis.

assistance (particularly AFDC and SSI).² Some States also provided Medicaid coverage to other people through programs for the medically needy. In the past decade, however, numerous legislative initiatives at both the Federal and State levels have expanded Medicaid coverage to certain low-income groups beyond those who are receiving cash assistance. Beginning with the Deficit Reduction Act of 1984 and continuing through the Omnibus Budget Reconciliation Act (OBRA) of 1990, most of the Federal initiatives were specifically targeted to low-income children and pregnant women. It is estimated that the Federal and State expansions doubled the number of children eligible for Medicaid on a national basis (Selden, Banthin, and Cohen, 1998).

Current law as of 1996 established Medicaid eligibility for infants, children up to age 6, and pregnant women whose family income was not over 133 percent of the poverty level, regardless of whether they received AFDC. Children born after September 30, 1983, whose family income was up to 100 percent of the poverty level were also eligible for Medicaid. As of the first part of 1996, this rule covered children age 12 and under. This phased-in expansion, referred to as the Waxman expansion, will include all children under age 19 with incomes up to 100 percent of the poverty level by 2002. Federal law also permits States the option of allowing Medicaid eligibility up to 185 percent of the poverty level for any of these groups of women and children, and some States have done so.

The Family Support Act of 1988 expanded coverage for whole families, including working-age men who were fathers of AFDC- or Medicaid-eligible children. The Act mandated all States to include the AFDC Unemployed Parents provision, which grants cash assistance and Medicaid coverage to intact families that meet the income requirement. It also extended Medicaid coverage for 12 months to families who lose AFDC assistance because of increased earnings.

In addition to Federal initiatives, several States have used Section 1115 "Research and Demonstration" waivers to expand access to publicly sponsored health insurance to a more broadly defined low-income and uninsured population. Programs such as Tenncare are open to low-income families and persons beyond the traditional Medicaid-eligible groups, including, for example, nondisabled childless adults. Many of these

programs have varying levels of cost-sharing and premium payments for eligible families depending on poverty status.

Another area of expansion affects certain low-income elderly and disabled people. Sections of the Medicare Catastrophic Coverage Act of 1988 presently in effect expanded Medicaid coverage to the low-income elderly and the low-income disabled. The Act requires that Medicaid pay for the Medicare cost-sharing requirements and premium payments for certain low-income qualified Medicare beneficiaries (the so-called dual eligibles).

Finally, growth in the SSI program also has affected Medicaid enrollment. The definition of qualifying disabilities was broadened for children because of legislative mandates and through court decisions, such as the Zebley decision, that expanded the definition of disabilities (Sullivan v. Zebley, 1990, 493 U.S. 521). SSI coverage also has grown to include people with AIDS and people with severe substance abuse problems.

Changes in Medicaid Enrollment Rates

Age and Sex

Table 1 compares Medicaid enrollment rates as a percentage of the total U.S. community population in the first part of 1996 and the first part of 1987. The first section of Table 1 shows the distribution of Medicaid enrollees by age category. The proportion of all children covered by Medicaid increased substantially, rising from 12.8 percent of all children under age 19 in the first part of 1987 to 20.5 percent of all children in the first part of 1996. While all age groups showed an increase, the most dramatic increase was among those targeted by Medicaid expansions—children under age 6—whose enrollment rose from 16.2 percent in 1987 to 25.8 percent in 1996. Medicaid enrollment for children ages 6-12 rose from 13.2 percent in 1987 to 21.0 percent in 1996. Teens ages 13-18 had lower Medicaid enrollment than younger children, but their rates rose too-from 9.4 percent in 1987 to 14.2 percent in 1996.

There was a large increase in Medicaid coverage of people age 65 and over, Medicare-Medicaid dual eligibles. Medicaid coverage rates for the community population in this age group increased from 7.6 percent in 1987 to 14.1 percent in 1996. The largest absolute

² Aid to Families with Dependent Children (AFDC) was replaced by Temporary Assistance to Needy Families (TANF), which went into effect in 1997. SSI stands for Supplemental Security Income.



increases between 1987 and 1996 were among children (7.7 percentage points) and among the elderly (6.5 percentage points). Relatively small increases were seen among working-age adults (2.6 percentage points).

The next section of Table 1 shows that the absolute increases in Medicaid coverage rates for all ages combined were similar for females and males, although females were covered by Medicaid at a higher rate than males. In 1996, 13.2 percent of females were enrolled in Medicaid, an increase of 4.3 percentage points from 1987; 10.6 percent of males were enrolled in 1996, an increase of 4.9 percentage points from 1987.

In the next section of Table 1, coverage rates for adults are shown by age and sex. Even though pregnant

Medicaid enrollment rates rose in the Hispanic and white/other groups but remained about the same for blacks. women were targeted by Medicaid expansions, enrollment rates for women ages 19-44 increased by only 29 percent between 1987 and 1996, rising from 8.0 to 10.3 percent.

Coverage rates for men of the same age more than doubled between 1987 and 1996, increasing from 2.5 to 5.6 percent. As mentioned earlier, the Family Support Act of 1988 expanded Medicaid eligibility for

low-income working-age fathers of young children.

The highest levels of coverage of adults were among the elderly. In 1996, about 15.9 percent of elderly women were enrolled in Medicaid, up from 9.6 percent in 1987; 11.7 percent of elderly men were enrolled in 1996, up from 4.7 percent in 1987.

Race/Ethnicity

Differences in Medicaid enrollment rates by racial and ethnic group are shown in the next section of Table 1. The first two columns of data show the markedly different rates of growth in the U.S. community population by racial and ethnic group. The number of Hispanics in the United States increased by 51 percent between 1987 and 1996, blacks increased by 16 percent, and whites and others (including Asians, Pacific Islanders, American Indians, and Alaska Natives) increased by approximately 6 percent. At the same time, Medicaid enrollment rates increased from 16.9 percent to 21.0 percent among Hispanics and from 4.1 percent

to 8.4 percent among the group of whites and others, with no significant change among blacks.

Location

The next two sections of the table look at urban and regional differences. While there was a decrease in the number of people in the U.S. community population living outside metropolitan statistical areas (MSAs) from 1987 to 1996, the rate of Medicaid enrollment grew faster in non-MSAs (rising from 8.1 percent to 13.9 percent) than in MSAs (increasing from 7.1 percent to 11.4 percent). The West Region of the country experienced not only an increase in overall population but also a large increase in Medicaid coverage rates. Medicaid enrollment in the West grew 8.2 percentage points, from 5.9 percent of the population in 1987 to 14.1 percent in 1996.

Employment Status

In examining how Medicaid enrollment has changed with respect to employment status, the sample is subset to people under age 65 in the last section of Table 1. The total number of people who lived in households without an employed adult (ages 18-64) stayed relatively constant between 1987 and 1996 in spite of the increase in the overall U.S. population, while the number of children living in these households fell slightly from 8.2 million to 7.4 million. Yet, three-quarters (75.4 percent) of all children who lived in a household without an employed adult were enrolled in Medicaid in 1996, up from 64.8 percent in 1987.

The percent of people enrolled in Medicaid who were living in households with an employed adult increased overall from 2.8 percent in 1987 to 7.8 percent in 1996. The largest increase was among children, whose rate of enrollment rose from 5.2 percent in 1987 to 14.7 percent in 1996. The change in eligibility criteria that grants Medicaid coverage to some children and pregnant women based on poverty status rather than AFDC eligibility may explain this rise. In spite of holding jobs, some families still qualify for Medicaid coverage of some or all members of the family.

Demographic Changes

Table 2 shows how the composition of the Medicaid community population changed between early 1987 and early 1996. The distribution of enrollees as a percentage of the total Medicaid community population is shown by selected demographic characteristics. The overall Medicaid population grew from 17.5 million in the first part of 1987 to 31.4 million in the first part of 1996. In addition, the composition of the Medicaid population shifted in some significant ways, reflecting increases in the rates of enrollment by different subgroups as well as changes in the overall U.S. population.

The first section of Table 2 shows that children still made up slightly less than half (48.9 percent) of the Medicaid community population in 1996. This percentage did not change significantly despite relatively

Over half of children covered by Medicaid in 1996 lived in families with at least one working parent. larger increases in children's enrollment rates as well as larger increases in overall population numbers compared with other age groups. The percentage of adults ages 19-44 fell by 3.2 percentage points to 26.7 percent of the total community Medicaid population in 1996. The percentage of elderly adults rose from 12.9 percent in 1987 to 14.3 percent in 1996, but this is not a statistically significant change.

Medicaid enrollees are also shown by sex and agesex categories. Medicaid programs were more likely to cover men in 1996 than in 1987. The percentage of males in the Medicaid community population grew to 43.3 percent of the total in 1996, compared with 37.8 percent in 1987. Although the absolute number of women ages 19-44 enrolled in Medicaid increased from 4.0 million in 1987 to about 5.5 million in 1996, this group made up only 17.4 percent of the total Medicaid community population, down from 23.0 percent in 1987. At the same time, men ages 19-44 increased from 6.8 to 9.2 percent of the total. Although small, these changes in composition can have implications for the mix of services paid for by the Medicaid program, since working-age men and women have different health care needs from each other and from the needs of young children and the elderly.

There also have been significant changes by racial and ethnic group. Whites and others made up more than

half (54.4 percent) of the Medicaid community population in 1996, while blacks fell to 26.6 percent of the total. This is a significant shift from 1987, when whites and others composed 44.6 percent and blacks composed 37.4 percent of the total Medicaid community population. Hispanics stayed nearly constant, at 19.0 percent of the total in 1996 and 18.1 percent of the total in 1987.

Changes by urban and geographic region are shown in the next section of Table 2. There were no significant shifts in the percentage of the Medicaid community population living in urban areas. Medicaid enrollees living in the West made up a greater percentage of the total Medicaid population in 1996 than in 1987 (26.1 percent versus 15.8 percent).

The last section of Table 2 shows only people under age 65 and compares the changes in the Medicaid community population by household employment status. Employed adults (ages 18-64) composed 12.8 percent of the Medicaid community population in 1996, up from 7.3 percent in 1987. Children who lived in a household with an employed adult made up 29.9 percent of the total Medicaid community population in 1996, compared with just 15.5 percent in 1987. Conversely, children who lived in households without an employed adult made up 17.8 percent of the total in 1996, down from 30.2 percent in 1987.

Changes in Parents' Employment Status

Table 3 looks at Medicaid-enrolled children specifically in terms of the employment status of their parents. Children in both one- and two-parent households are included. The composition of the group of Medicaid-enrolled children changed dramatically from 1987 to 1996 in terms of their parents' employment status. Whereas in 1987 three-quarters (74.9 percent) of Medicaid-enrolled children lived in households with no employed parent, this group fell to less than half (47.2 percent) of all Medicaid-enrolled children in 1996. The percentage with one or two employed parents increased to 52.8 percent in 1996, up from 25.1 percent in 1987.



Health Status, 1996

One of the main objectives of the Medicaid program has always been to ensure access to health care for people who need care but cannot pay for it on their own. In addition to being in greater economic need, the population served by Medicaid generally has tended to be less healthy than the non-Medicaid population. There also has been considerable interest in recent years in the relationship between health status and health insurance. Tables 4-6 examine the relationship between health status and Medicaid coverage for three separate populations of interest: children, non-elderly adults, and adults age 65 and over.

Table 4 presents data on health status and Medicaid coverage for children age 18 and under. The probability that a child is enrolled in Medicaid is associated with the state of both the child's general and mental health. Children in fair or poor health are much more likely than those in excellent or very good health to be covered by Medicaid. In 1996, 41.2 percent of children in fair or poor general health and 43.9 percent of those in fair or poor mental health were enrolled in Medicaid, in contrast to the enrollment rates for children in excellent or very good general health (17.2 percent) and excellent or very good mental health (18.0 percent). Moreover, compared with the total population of children ages 18 and under, those on Medicaid were:

- Less likely to be in excellent or very good general health (79.7 percent of the total population vs. 67.0 percent of children enrolled in Medicaid) or mental health (84.0 percent of the total population vs. 73.8 percent).
- Twice as likely to be in fair or poor general health (3.9 percent of the total population versus 7.9 percent for Medicaid) or mental health (2.9 percent of the total population versus 6.1 percent).

Table 5 presents similar data for the non-elderly adult population (ages 19-64). As was the case with children, non-elderly adults in fair or poor health are much more likely than their healthier counterparts to be covered by Medicaid. Non-elderly adults who need assistance with activities of daily living (ADLs) or instrumental activities of daily living (IADLs) and those who have activity limitations are also more likely

to be covered by Medicaid. For each measure, the probability of being enrolled in Medicaid increases as health status declines. For example, only 4.0 percent of non-elderly adults in excellent or very good general health, but nearly one-third (31.4 percent) of non-elderly adults in poor general health, were covered by the program in 1996. Similarly, non-elderly adults who needed ADL or IADL assistance were approximately six times as likely as those who did not need such assistance to be enrolled in Medicaid (40.3 percent compared with 6.6 percent).

Medicaid's orientation toward people who have health problems can also be seen in the health status of non-elderly adult program enrollees compared with the health status of the total U.S. population this age. For example, people in excellent or very good health make up nearly two-thirds (64.5 percent) of the total nonelderly adult population but only about one-third (35.1 percent) of the Medicaid population this age. Similarly, while only 7.1 percent of the total nonelderly adult population had any activity limitations, more the one-quarter (28.2 percent) of the comparable Medicaid population had a limitation of some kind. Finally, non-elderly adults covered by Medicaid were nearly six times as likely as the total population this age to be in poor mental health (5.9 percent versus 1.0 percent) or to need ADL or IADL assistance (12.4 percent versus 2.3 percent).

Table 6 presents health status data for the elderly noninstitutionalized Medicaid population (age 65 and over). As is true for both children and non-elderly adults, the probability of being enrolled in Medicaid increases as the health status of the elderly declines. For example, elderly persons whose general health status was excellent or very good were less than half as likely to be enrolled in Medicaid as those whose health status was only fair or poor (9.9 percent versus 22.9 percent). The same was true for mental health (11.5 percent versus 28.2 percent). Elderly individuals who did not need ADL or IADL assistance were less than half as likely to be enrolled in Medicaid as those who needed such assistance (12.3 percent vs. 25.5 percent). In 1996, elderly Medicaid enrollees were much more likely than the total elderly population:

- To be in fair or poor general health (44.3 percent versus 27.2 percent).
- To be in fair or poor mental health (22.8 percent vs. 11.4 percent).

- To need ADL or IADL assistance (25.7 percent vs. 14.3 percent).
- To have an activity limitation (34.4 percent vs. 22.3 percent).

Conclusions

The Medicaid community population grew significantly from 1987 to 1996, at the same time as a number of expansions in eligibility rules extended Medicaid coverage to people not receiving cash assistance. The pattern in both years was that children, the elderly, women, minorities, and the nonworking populations were more likely than others to be enrolled in Medicaid. Medicaid also was more likely to serve the sick and disabled. Data for 1996 show that people in poor general or mental health and people with limitations or in need of assistance in daily living were more likely to be enrolled in Medicaid then healthy nondisabled persons were.

The composition of the Medicaid community population shifted slightly but significantly from 1987 to 1996. There were relatively higher proportions of whites and men and relatively lower proportions of women and blacks in 1996 than in 1987. Children composed nearly half of Medicaid enrollees in both years. The proportion of the total Medicaid community population consisting of non-elderly adults fell, but employed adults constituted a much greater proportion of non-elderly Medicaid-enrolled adults in 1996 than in 1987. This was also true for the parents of Medicaidenrolled children; many more of the parents in 1996 than in 1987 were employed. Thus, concurrent with a number of important expansions in Medicaid eligibility rules, enrollment patterns and the makeup of the Medicaid community population changed from 1987 to 1996. These shifts have significant implications for the administration of such an important insurance program for low-income individuals and families.

References

Cohen J. Design and methods of the Medical Expenditure Panel Survey Household Component. Rockville (MD): Agency for Health Care Policy and Research; 1997. MEPS Methodology Report No. 1. AHCPR Pub. No. 97-0026.

Cohen J, Cornelius L, Hahn B, et al. Use of services and expenses for the noninstitutionalized population under Medicaid. Rockville (MD): Agency for Health Care Policy and Research; 1994. National Medical Expenditure Survey Research Findings 20. AHCPR Pub. No. 94-0051.

Cohen JW, Monheit AC, Beauregard KM, et al. The Medical Expenditure Panel Survey: a national health information resource. Inquiry 1996;33:373-89.

Cohen S. Sample design of the 1996 Medical Expenditure Panel Survey Household Component. Rockville (MD): Agency for Health Care Policy and Research; 1997. MEPS Methodology Report No. 2. AHCPR Pub. No. 97-0027.

Cohen S, DiGaetano R, Waksberg J. Sample design of the Household Survey. Rockville (MD): Agency for Health Care Policy and Research; 1991. National Medical Expenditure Survey Methods 3. AHCPR Pub. No. 91-0037.

Edwards WS, Berlin M. Questionnaires and data collection methods for the Household Survey and the Survey of American Indians and Alaskan Natives. Rockville (MD): National Center for Health Services Research and Health Care Technology Assessment; 1989. National Medical Expenditure Survey Methods 2. DHHS Pub. No. (PHS) 89-3450.

Selden TM, Banthin JS, Cohen JW. Medicaid's problem children: eligible but not enrolled. Health Affairs 1998;17(3):192-200.

Short P, Monheit A, Beauregard K. A profile of uninsured Americans. Rockville (MD): National Center for Health Services Research and Health Care Technology Assessment; 1989. National Medical Expenditure Survey Research Findings 1. DHHS Pub. No.(PHS) 89-3443.

Vistnes JP, Monheit AC. Health insurance status of the U.S. civilian noninstitutionalized population: 1996. Rockville (MD): Agency for Health Care Policy and Research; 1997. MEPS Research Findings No. 1. AHCPR Pub. No. 97-0030.



Table 1. Demographic characteristics of the total population and percent with Medicaid: U.S. community population, first half of 1996 and first half of 1987

	Total p	opulation ousands	Percent with Medicaid	
Demographic characteristics	1996	1987	1996	1987
Total	263,516	237,890	11.9	7.3
Age in years				
All children, 18 and under	74,866	64,624	20.5	12.8
Under 6	24,100	19,087	25.8	16.2
6-12	28,285	23,952	21.0	13.2
13-18	22,481	21,586	14.2	9.4
All working-age adults, 19-64	156,810	143,597	7.4	4.8
19-44	104,541	98,486	8.0	5.3
45-64	52,269	45,111	6.1	3.9
Adults age 65 and over	31,839	29,670	14.1	7.6
Sex				
Male	128,383	115,144	10.6	5.7
Female	135,133	122,746	13.2	8.9
Sex and age (adults)				
Male, 19-44	51,505	48,083	5.6	2.5
Male, 45-64	25,188	21,598	4.9	2.7
Male, 65 and over	13,279	12,256	11.7	4.7
Female, 19-44	53,036	50,403	10.3	8.0
Female, 45-64	27,081	23,513	7.1	4.9
Female, 65 and over	18,561	17,414	15.9	9.6
Race/ethnicity				
Hispanic	28,384	18,752	21.0	16.9
Black	32,975	28,356	25.3	23.0
White and other	202,157	190,783	8.4	4.1
Metropolitan statistical				
area (MSA)				
MSA	210,640	177,216	11.4	7.1
Non-MSA	52,876	60,675	13.9	8.1
Region				
Northeast	51,464	47,521	12.9	8.4
Midwest	61,828	60,137	10.4	7.7
South	91,855	83,344	11.1	7.3
West	58,369	46,889	14.1	5.9

Continued

MEPS

Table 1. Demographic characteristics of the total population and percent with Medicaid: U.S. community population, first half of 1996 and first half of 1987 (continued)

	Total population in thousands		Percent wit	th Medicaid
Demographic characteristics	1996	1987	1996	1987
Household employment status (under age 65)				
All persons under age 65 All persons in household	231,676	208,220	11.6	7.3
without working adult ^a	23,103	22,981	46.2	43.7
Nonworking adult	15,704	14,826	32.5	32.2
Child	7,399	8,156	75.4	64.8
All persons in household				
with working adult ^a	208,574	185,239	7.8	2.8
Working adult	121,882	110,503	3.3	1.2
Nonworking adult	22,669	22,093	12.5	5.4
Child	64,022	52,643	14.7	5.2

^aAges 18-64.

Source: Center for Cost and Financing Studies, Agency for Health Care Policy and Research: Medical Expenditure Panel Survey Household Component, 1996 (Round 1); National Medical Expenditure Survey Household Survey, 1987 (Round 1).



Table 2. Demographic characteristics of the Medicaid population: U.S. community population, first half of 1996 and first half of 1987

	Medicaid in th	d population ousands	Percent of popula	
Demographic characteristics	1996	1987	1996	1987
Total	31,393	17,480	100.0	100.0
Age in years				
All children, 18 and under	15,344	8,269	48.9	47.3
Under 6	6,223	3088	19.8	17.7
6-12 13-18	5,930 3,191	3,163 2,018	18.9 10.2	18.1 11.5
All working-age adults, 19-64	3,191 11,546	6,962	36.8	39.8
19-44	8,372	5,223	26.7	29.9
45-64	3,174	1,739	10.1	9.9
Adults age 65 and over	4,503	2,249	14.3	12.9
	4,303	Z ₁ Z¬ /	14.5	12.7
Sex Male	12 500	4.404	42.2	27.0
iviale Female	13,599	6,606 10,874	43.3 56.7	37.8 62.2
remaie	17,794	10,874	50.7	02.2
Sex and age (adults)				
All adults	16,049	9,210	51.1	52.7
Male, 19-44	2,896	1,195	9.2	6.8
Male, 45-64	1,240	586	3.9	3.4
Male, 65 and over	1,547	571	4.9	3.3 23.0
Female, 19-44 Female, 45-64	5,476 1,935	4,027 1,153	17.4 6.2	6.6
Female, 45-64 Female, 65 and over	2,956	1,153	6.2 9.4	9.6
remale, os and over	2,930	1,070	7.4	7.0
Race/ethnicity	F 070	0.470	40.0	404
Hispanic	5,970	3,160	19.0	18.1
Black White and other	8,342	6,532	26.6 54.4	37.4 44.6
vvnite and other	17,081	7,788	54.4	44.0
Metropolitan statistical				
area (MSA)	04.004	10.547	7/ 5	74.0
MSA Non-MSA	24,024	12,547	76.5	71.8
Non-MSA	7,369	4,933	23.5	28.2
Region				
Northeast	6,620	3,981	21.1	22.8
Midwest	6,407	4,659	20.4	26.7
South	10,162	6,075	32.4	34.8
West	8,204	2,766	26.1	15.8

Continued



Table 2. Demographic characteristics of the Medicaid population: U.S. community population, first half of 1996 and first half of 1987 (continued)

	Medicaid population in thousands		Percent of Medicaid population	
Demographic characteristics	1996	1987	1996	1987
Household employment status (under age 65)				
All persons under age 65 All persons in household	26,890	15,231	85.7	87.1
without working adult ^a	10,674	10,048	34.0	57.5
Nonworking adult	5,098	4,767	16.2	27.3
Child	5,576	5,281	17.8	30.2
All persons in household				
with working adult ^a	16,217	5,183	51.7	29.7
Working adult	4,005	1,282	12.8	7.3
Nonworking adult	2,824	1,186	9.0	6.8
Child	9,388	2,715	29.9	15.5

^a Ages 18-64.

Source: Center for Cost and Financing Studies, Agency for Health Care Policy and Research: Medical Expenditure Panel Survey Household Component, 1996 (Round 1); National Medical Expenditure Survey Household Survey, 1987 (Round 1).



Table 3. Employment status of parents of Medicaid-enrolled children age 18 and under: U. S. community population, first half of 1996 and first half of 1987

	Population of Medicaid- enrolled children in thousands		Percent of Medicaid- enrolled children	
Employment status	1996	1987	1996	1987
Total	15,344	8,269	100	100
2 parents employed 1 parent employed No parent employed	1,949 6,149 7,246	293 1,787 6,190	12.7 40.1 47.2	3.5 21.6 74.9

Source: Center for Cost and Financing Studies, Agency for Health Care Policy and Research: Medical Expenditure Panel Survey Household Component, 1996 (Round 1); National Medical Expenditure Survey Household Survey, 1987 (Round 1).



Table 4. Health status of total and Medicaid-enrolled children age 18 and under: U.S. community population, first half of 1996

Health status	Children in thousands	Medicaid- enrolled children in thousands	Medicaid-enrolled as a percent of all children	Percent distribution of all children	Percent distribution of Medicaid- enrolled children
Total	74,866	15,344	20.5	100.0	100.0
General health ^a Excellent or very good Good Fair or poor	59,594	10,267	17.2	79.7	67.0
	12,187	3,859	31.7	16.3	25.1
	2,947	1,215	41.2	3.9	7.9
Mental health ^a Excellent or very good Good Fair or poor	62,680	11,313	18.0	84.0	73.8
	9,828	3,089	31.4	13.2	20.1
	2,137	938	43.9	2.9	6.1

^aItem nonresponse was less than 0.1 percent of all responses. Distributional estimates on health status were made on the assumption that nonrespondents followed the distribution of respondents.



Table 5. Health status of total and Medicaid-enrolled adults ages 19-64: U.S. community population, first half of 1996

Health status	Non-elderly adults in thousands	Medicaid- enrolled non- elderly adults in thousands	Medicaid-enrolled as a percent of all non-elderly adults	Percent distribution of all non-elderly adults	Percent distribution of Medicaid-enrolled non-elderly adults
Total	156,810	11,546	7.4	100.0	100.0
General healtha Excellent or very good Good Fair Poor	100,760	4,015	4.0	64.5	35.1
	37,322	3,407	9.1	23.9	29.7
	12,891	2,431	18.9	8.3	21.2
	5,149	1,619	31.4	3.3	14.0
Mental health ^a Excellent or very good Good Fair Poor	117,948	5,638	4.8	75.6	49.2
	29,901	3,525	11.8	19.2	30.7
	6,663	1,625	24.4	4.3	14.2
	1,585	685	43.2	1.0	5.
Assistance No assistance needed Assistance needed with ADLs or IADLsb	153,260	10,114	6.6	97.7	87.6
	3,550	1,432	40.3	2.3	12.4
Limitations ^c No limitations Any limitation	145,661	8,290	5.7	92.9	71.8
	11,150	3,257	29.2	7.1	28.2

^aItem nonresponse was 0.6 percent of all responses. Distributional estimates on health status were made on the assumption that nonrespondents followed the distribution of respondents.

^bActivities of daily living (ADLs) include activities such as bathing and dressing. Instrumental activities of daily living (IADLs) include activities such as shopping and paying bills.

^cLimitations involve the ability to work at a job, do housework, or go to school.



Table 6. Health status of total and Medicaid-enrolled adults age 65 and over: U.S. community population, first half of 1996

Health status	Elderly adults in thousands	Medicaid- enrolled elderly adults in thousands	Medicaid-enrolled as a percent of all elderly adults	Percent distribution of all elderly adults	Percent distribution of Medicaid-enrolled elderly adults
Total	31,839	4,503	14.1	100.0	100.0
General health ^a Excellent or very good Good Fair or poor	13,773	1,364	9.9	43.8	30.8
	9,131	1,108	12.1	29.0	24.9
	8,559	1,963	22.9	27.2	44.3
Mental health^a Excellent or very good Good Fair or poor	19,288	2,218	11.5	61.3	50.0
	8,602	1,208	14.0	27.3	27.2
	3,578	1,009	28.2	11.4	22.8
Assistance No assistance needed Assistance needed with ADLs or IADLsb	27,298	3,347	12.3	85.7	74.3
	4,542	1,156	25.5	14.3	25.7
Limitations ^c No limitations Any limitation	24,753 7,087	2,955 1,548	11.9 21.8	77.7 22.3	65.6 34.4

^aItem nonresponse was 1.5 percent of all responses. Distributional estimates on health status were made on the assumption that nonrespondents followed the distribution of respondents.

^bActivities of daily living (ADLs) include activities such as bathing and dressing. Instrumental activities of daily living (IADLs) include activities such as shopping and paying bills.

^cLimitations involve the ability to work at a job, do housework, or go to school.



Technical Appendix

The data in this report were obtained in the first round of interviews for the Household Component (HC) of the 1996 Medical Expenditure Panel Survey (MEPS) and the Household Survey of the 1987 National Medical Expenditure Survey (NMES). MEPS is cosponsored by the Agency for Health Care Policy and Research (AHCPR) and the National Center for Health Statistics (NCHS). NMES was sponsored by AHCPR's predecessor, the National Center for Health Services Research. Both are nationally representative surveys of the U.S. civilian noninstitutionalized population that collect medical expenditure data at both the person and household levels.

The focus of the MEPS HC and the NMES Household Survey is to collect detailed data on demographic characteristics, health conditions, health status, use of medical care services, charges and payments, access to care, satisfaction with care, health insurance coverage, income, and employment. In other components of MEPS and NMES, data are collected on residents of licensed or certified nursing homes and on the supply side of the health insurance market.

Survey Design

1996 MEPS

The sample for the 1996 MEPS HC was selected from respondents to the 1995 National Health Interview Survey (NHIS), which was conducted by NCHS. NHIS provides a nationally representative sample of the U.S. civilian noninstitutionalized population and reflects an oversampling of Hispanics and blacks.

The MEPS HC collects data through an overlapping panel design. In this design, data are collected through a precontact interview that is followed by a series of five rounds of interviews over $2^{1/2}$ years. Interviews are conducted with one member of each family, who reports on the health care experiences of the entire family. Two calendar years of medical expenditure and utilization data are collected from each household and captured using computer-assisted personal interviewing (CAPI). This series of data collection rounds is launched again each subsequent year on a new sample of households to provide overlapping panels of survey data that will provide continuous and current estimates of health care

expenditures. The reference period for Round 1 of the MEPS HC was from January 1, 1996, to the date of the first interview, which occurred during the period from March through July 1996.

1987 NMES

The 1987 NMES was designed to provide estimates of insurance coverage, use of services, expenditures, and sources of payment for the 1-year period from January 1, 1987, through December 31, 1987. The entire Household Survey was conducted in four interview rounds at approximately 4-month intervals, with a fifth short telephone interview at the end. Items related to health status, access to health care, and income were collected in special supplements that were administered over the course of the calendar year. The reference period for Round 1 of the Household Survey was from January 1, 1987, to the date of the first interview, which took place at some time from February through April 1987. For more information on the survey instruments and data collection methods for NMES, see Edwards and Berlin (1989).

Medicaid Coverage

The household respondent was asked if—between the first of the year and the time of the Round 1 interview—anyone in the family was covered by any of several sources of public and private health insurance coverage. For this report, Medicaid enrollment represents coverage at any time during the Round 1 reference period. Persons identified as having Medicaid coverage could also have had other sources of public and private coverage. For more details on health insurance status measures, see Vistnes and Monheit (1997) for information on the 1996 MEPS and Short, Monheit, and Beauregard (1989) for information on the 1987 NMES.

Respondents were asked if they were covered by Medicaid, medical assistance, or some other Statespecific name for the Medicaid program. In editing the 1996 data, a small number of cases reporting Aid to Families with Dependent Children (AFDC) or Supplemental Security Income (SSI) coverage (questions included in Round 1 for editing purposes) were assigned Medicaid coverage. To identify Medicaid recipients who might not have recognized their coverage as Medicaid, respondents who did not report Medicaid

coverage were asked if they were covered by any other public hospital/physician coverage. If they said yes, they were identified as Medicaid enrollees.

In editing the 1987 NMES data, the Medicaid status of approximately 150 persons with missing data was inferred from family relationships, receipt of SSI and AFDC, whether Medicaid was reported as a source of payment for a person's medical expenses, employment information, and poverty status of the persons living in the dwelling unit at the time of the screening interview.

The accuracy of Medicaid reporting in household surveys can be assessed by comparisons with Medicaid administrative data. The administrative data are counts of the number of persons who were covered by Medicaid at any point during the year. Thus, they can be compared appropriately to full-year estimates rather than the part-year estimates used in this report. Full-year estimates from the 1996 MEPS are not available for this report. However, full-year estimates from the 1987 NMES show that Medicaid estimates for NMES were only 4.7 percent below administrative enrollment counts. For further information on the accuracy of Medicaid reporting, see Selden, Banthin, and Cohen (1998).

Population Characteristics

Information on all population characteristics used in this report comes from Round 1 of either the 1996 MEPS HC or the 1987 NMES Household Survey.

Race/Ethnicity

Classification by race and ethnicity is based on information reported for each family member.

Respondents were asked if their race was best described as American Indian, Alaska Native, Asian or Pacific Islander, black, white, or other. In this report, American Indians, Alaska Natives, Asians, and Pacific Islanders are included with whites in the category "white and other."

Respondents also were asked if each family member's main national origin or ancestry was Puerto Rican; Cuban; Mexican, Mexicano, Mexican American, or Chicano; other Latin American; or other Spanish. All persons whose main national origin or ancestry was reported in one of these Hispanic groups, regardless of racial background, were classified as Hispanic. Since the Hispanic grouping can include black Hispanic, white

Hispanic, and other Hispanic, the race categories of black and white/other do not include Hispanic persons.

Region and Place of Residence

Individuals were identified as residing in one of four main regions—Northeast, Midwest, South, and West—in accordance with the U.S. Bureau of the Census definition. Place of residence, either inside or outside a metropolitan statistical area (MSA), was defined according to the U.S. Office of Management and Budget designation, which applied 1990 standards using population counts from the 1990 U.S. census. An MSA is a large population nucleus combined with adjacent communities that have a high degree of economic and social integration with the nucleus. Each MSA has one or more central communities containing the area's main population concentration. In New England, metropolitan areas consist of cities and towns rather than whole counties.

Age

The respondent was asked to report the age of each family member as of the date of the Round 1 interview.

Household Employment Status

A household (family) was defined as a group of people living together who were related to one another by blood, marriage (or living together as married), or adoption or foster care. For this report, presence of an employed adult was defined as having a person living in the household at the time of the Round 1 interview who was age 18-64 and had a paying job.

Health Status, 1996

Health status measures used in this report are from the 1996 MEPS only. In every round of MEPS, the respondent is asked to rate the health of every member of the family. The exact wording of the question is: "In general, compared to other people of (PERSON)'s age, would you say that (PERSON)'s health is excellent, very good, good, fair, or poor?" A similar question is asked about mental health status.

In order to generate the distributional estimates presented in Tables 4-6, it was assumed that persons



missing data for these questions were distributed across health states following the distribution of those with data available.

Assistance with ADLs and IADLs

Questions concerning the need for assistance in instrumental activities of daily living (IADLs) and in activities of daily living (ADLs) are asked in every round of MEPS. Limitations in the ability to perform IADLs are assessed by first asking the respondent a screening question: "Does anyone in the family receive help or supervision using the telephone, paying bills, taking medications, preparing light meals, doing laundry, or going shopping?" Limitations in ability to perform ADLs are assessed with the following question: "Does anyone in the family receive help or supervision with personal care such as bathing, dressing, or getting around the house?" Followup questions are asked, but they are not used in this report. For this report, the responses to the two screening questions are combined into a single measure of need for any type of IADL or ADL assistance.

Activity Limitations

These include limitations in both paid work and unpaid housework, as well as limitations in the ability to attend school. The relevant question asks, "Is anyone in the family limited in any way in the ability to work at a job, do housework, or go to school *because of an impairment or a physical or mental health problem?*" (emphasis in the question as indicated).

Sample Design and Accuracy of Estimates

1996 MEPS

The sample selected for the 1996 MEPS, a subsample of the 1995 NHIS, was designed to produce national estimates that are representative of the civilian noninstitutionalized population of the United States. Round 1 data were obtained for approximately 9,400 households in MEPS comprising 23,612 individuals, which results in a survey response rate of 78 percent. This figure reflects participation in both NHIS and MEPS.

The statistics presented in this report are affected by both sampling error and sources of nonsampling error, which include nonresponse bias, respondent reporting errors, and interviewer effects. For a detailed description of the MEPS survey design, the adopted sample design, and methods used to minimize sources of nonsampling error, see J. Cohen (1997), S. Cohen (1997), and Cohen, Monheit, Beauregard, et al. (1996). The MEPS person-level estimation weights include nonresponse adjustments and poststratification adjustments to population estimates derived from the March 1996 Current Population Survey (CPS) based on cross-classifications by region, age, race/ethnicity, and gender.

Tests of statistical significance were used to determine whether the differences between populations exist at specified levels of confidence or whether they occurred by chance. Differences were tested using Z-scores having asymptotic normal properties at the 0.05 level of significance. Unless otherwise noted, only statistically significant differences between estimates are discussed in the text.

1987 NMES

The NMES Household Survey was designed to produce statistically unbiased national estimates that are representative of the civilian noninstitutionalized population of the United States. To this end, the Household Survey used the national multistage area samples of Westat, Inc., and the National Opinion Research Corporation (NORC).

An initial screening interview was conducted in fall 1986 to facilitate oversampling of population subgroups of particular policy concern (i.e., blacks, Hispanics, the elderly, the poor and near poor, and those with difficulties in ADLs). Screening interviews were completed in approximately 28,700 dwelling units. Sampling specifications required the selection of approximately 17,500 households for the first core household interview. Data were obtained for about 85.4 percent of eligible households in the first interview. Approximately 6 percent of all survey participants provided data for only some of the time in which they were eligible to respond. In the Household Survey, the full-year core questionnaire response rate was 80.1 percent and the joint core questionnaire/health questionnaire/access supplement response rate was 72.0 percent. For a detailed description of the survey design and of sampling, estimation, and adjustment methods, including weighting for nonresponse and



poststratification, see Cohen, DiGaetano, and Waksberg (1991).

Rounding

Estimates presented in the tables were rounded to the nearest 0.1 percent. Standard errors, presented in Tables A-F, were rounded to the nearest 0.01. Therefore, some of the estimates for population totals of subgroups presented in the tables will not add exactly to the overall estimated population total.



Table A. Standard errors for demographic characteristics of percent of U.S. population with Medicaid: U.S. community population, first half of 1996 and first half of 1987

Corresponds to Table 1

	Percent with Medicaid			
Demographic characteristics	1996	1987		
Total	0.53	0.39		
Age in years				
All children,18 and under	1.00	0.68		
Under 6	1.46	0.98		
6-12	1.29	0.85		
13-18	1.18	0.82		
All working-age adults, 19-64	0.41	0.27		
19-44	0.47	0.31		
45-64	0.49	0.32		
Adults age 65 and over	0.94	0.68		
Sex				
Male	0.54	0.33		
Female	0.58	0.49		
Sex and age (adults)				
Male, 19-44	0.47	0.23		
Male, 45-64	0.49	0.35		
Male, 65 and over	1.20	0.57		
Female, 19-44	0.64	0.47		
Female, 45-64	0.62	0.41		
Female, 65 and over	1.08	0.89		
Race/ethnicity				
Hispanic	1.18	1.14		
Black	1.68	1.50		
White and other	0.54	0.28		
Metropolitan statistical area (MSA)				
MSA	0.61	0.44		
Non-MSA	1.10	0.83		
Region				
Northeast	0.92	0.96		
Midwest	0.98	0.68		
South	0.94	0.74		
West	1.17	0.60		

Continued

MEPS

Table A. Standard errors for demographic characteristics of percent of U.S. population with Medicaid: U.S. community population, first half of 1996 and first half of 1987 (continued)

Corresponds to Table 1

	Percent with Medicaid		
Demographic characteristics	1996	1987	
Household employment status (under age 65)	·		
All persons under age 65	0.56	0.40	
All persons in household without working adult ^a	1.81	1.42	
Nonworking adult	1.63	1.46	
Child	2.48	1.86	
All persons in household with working adult ^a	0.48	0.17	
Working adult	0.30	0.10	
Nonworking adult	0.95	0.45	
Child	0.90	0.40	

^aAges 18-64.

Source: Center for Cost and Financing Studies, Agency for Health Care Policy and Research: Medical Expenditure Panel Survey Household Component, 1996 (Round 1); National Medical Expenditure Survey Household Survey, 1987 (Round 1).



Table B. Standard errors for demographic characteristics of the Medicaid population: U.S. community population, first half of 1996 and first half of 1987 *Corresponds to Table 2*

	Medicai in tl	d population housands	Percent of N populat	
Demographic characteristics	1996	1987	1996	1987
Total	1,407	983	0	0
Age in years				
All children, 18 and under	842	525	1.25	1.01
Under 6	402	238	0.93	0.84
6-12	394	230	0.82	0.84
13-18	286	185	0.74	0.78
All working-age adults, 19-64	635	390	1.05	0.82
19-44	505	308	0.91	0.85
45-64	253	143	0.70	0.63
Adults age 65 and over	326	196	1.01	0.89
Sex				
Male	711	394	0.89	0.93
Female	799	642	0.89	0.93
i etilale	177	042	0.07	0.73
Sex and age (adults)	77.4		4.05	4.04
All adults	764	516	1.25	1.01
Male, 19-44	257	110	0.65	0.56
Male, 45-64	126	75	0.37	0.38
Male, 65 and over	171	66	0.51	0.36
Female, 19-44	334	246	0.67	0.65
Female, 45-64	164	97	0.47	0.46
Female, 65 and over	222	156	0.73	0.70
Race/ethnicity				
Hispanic	487	382	1.64	2.32
Black	725	623	1.84	2.47
White and other	1,121	543	2.23	2.06
Metropolitan statistical				
area (MSA)				
MSA	1,284	847	2.07	2.95
Non-MSA	713	592	2.07	2.95
	713	372	2.07	2.75
Region	400	400	1.40	0.47
Northeast	420	483	1.40	2.47
Midwest	652	457	1.80	2.35
South	863	676	2.13	2.92
West	751	279	2.03	1.64

Continued

MEPS

Table B. Standard errors for demographic characteristics of the Medicaid population: U.S. community population, first half of 1996 and first half of 1987 (continued)

Corresponds to Table 2

		Medicaid population in thousands		Percent of Medicaid population	
Demographic characteristics	1996	1987	1996	1987	
Household employment status (under age 65)		'			
All persons under age 65 All persons in household	1,326	875	1.01	0.89	
without working adult ^a	702	324	1.63	1.45	
Nonworking adult	340	325	0.83	0.92	
Child	442	408	1.13	1.17	
All persons in household					
with working adult ^a	989	697	1.82	1.61	
Working adult	352	108	0.86	0.57	
Nonworking adult	231	100	0.62	0.51	
Child	600	211	1.26	1.04	

^a Ages 18-64.

Source: Center for Cost and Financing Studies, Agency for Health Care Policy and Research: Medical Expenditure Panel Survey Household Component, 1996 (Round 1); National Medical Expenditure Survey Household Survey, 1987 (Round 1).



Table C. Standard errors for employment status of parents of Medicaidenrolled children age 18 and under: U.S. community population, first half of 1996 and first half of 1987 Corresponds to Table 3

	Population of Medicaid-enrolled children in thousands		Percent of Medicaid- enrolled children	
Employment status	1996	1987	1996	1987
Total	809	525	0	0
2 parents employed 1 parent employed No parent employed	255 455 483	73 148 449	1.50 2.00 2.06	0.85 1.58 1.89

Source: Center for Cost and Financing Studies, Agency for Health Care Policy and Research: Medical Expenditure Panel Survey Household Component, 1996 (Round 1); National Medical Expenditure Survey Household Survey, 1987 (Round 1).



Table D. Standard errors for health status of total and Medicaid-enrolled children age 18 and under: U.S. community population, first half of 1996 Corresponds to Table 4

Health status	Children in thousands	Medicaid- enrolled children in thousands	Medicaid-enrolled as a percent of all children	Percent distribution of all children	Percent distribution of Medicaid- enrolled children
Total	2,092	809	0.99	0	0
General health ^a Excellent or very good Good Fair or poor	1,697	595	0.93	0.67	1.65
	617	319	2.29	0.62	1.42
	210	128	3.45	0.27	0.82
Mental health ^a Excellent or very good Good Fair or poor	1,785	642	0.96	0.67	1.68
	539	281	2.39	0.58	1.41
	195	123	4.54	0.25	0.76

^aItem nonresponse was less than 0.1 percent of all responses. Distributional estimates on health status were made on the assumption that nonrespondents followed the distribution of respondents.



Table E. Standard errors for health status of total and Medicaid-enrolled adults ages 19-64: U.S. community population, first half of 1996 *Corresponds to Table 5*

Health status	Non-elderly adults in thousands	Medicaid- enrolled non- elderly adults in thousands	Medicaid-enrolled as a percent of all non-elderly adults	Percent distribution of all non-elderly adults	Percent distribution of Medicaid-enrolled non-elderly adults
Total	3,380	614	0.41	0	0
General health ^a Excellent or very good Good Fair Poor	2,481	276	0.28	0.62	1.81
	1,048	261	0.69	0.49	1.55
	509	194	1.34	0.28	1.39
	347	186	2.51	0.21	1.30
Mental health ^a Excellent or very good Good Fair Poor	2,736	346	0.31	0.56	1.83
	970	251	0.83	0.47	1.62
	354	178	2.36	0.20	1.24
	163	113	5.46	0.11	0.89
Assistance No assistance needed Assistance needed with ADLs or ADLsb	3,320	548	0.38	0.16	1.24
	2 265	165	3.50	0.16	1.24
Limitations ^c No limitations Any limitation	3,171	494	0.36	0.29	1.80
	521	265	1.83	0.29	1.80

 $^{^{}a}$ Item nonresponse was 0.6 percent of all responses. Distributional estimates on health status were made on the assumption that nonrespondents followed the distribution of respondents.

^bActivities of daily living (ADLs) include activities such as bathing and dressing. Instrumental activities of daily living (IADLs) include activities such as shopping and paying bills.

^cLimitations involve the ability to work at a job, do housework, or go to school.

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Table F. Standard errors for health status of total and Medicaid-enrolled adults age 65 and over: U.S. community population: first half of 1996 *Corresponds to Table 6*

Health status	Elderly adults in thousands	Medicaid- enrolled elderly adults in thousands	Medicaid-enrolled as a percent of all elderly adults	Percent distribution of all elderly adults	Percent distribution of Medicaid-enrolled elderly adults
Total	982	294	0.94	0	0
General health ^a Excellent or					
very good	558	149	1.03	1.09	2.64
Good	394	146	1.50	0.89	2.70
Fair or poor	417	174	1.82	1.01	2.73
Mental health ^b Excellent or					
very good	775	193	1.01	1.23	2.69
Good	377	126	1.47	1.11	2.32
Fair or poor	266	131	3.12	0.72	2.43
Assistance					
No assistance needed Assistance needed	864	258	0.97	0.69	2.32
with ADLs or IADLsb	264	117	2.29	0.69	2.32
Limitationsc					
No limitations	795	246	0.99	0.95	2.92
Any limitation	388	156	2.01	0.95	2.92

^aItem nonresponse was 1.5 percent of all responses. Distributional estimates on health status were made on the assumption that nonrespondents followed the distribution of respondents.

^bActivities of daily living (ADLs) include activities such as bathing and dressing. Instrumental activities of daily living (IADLs) include activities such as shopping and paying bills.

^cLimitations involve the ability to work at a job, do housework, or go to school.

U.S. Department of Health and Human Services

Public Health Service Agency for Health Care Policy and Research 2101 East Jefferson Street Suite 501 Rockville, MD 20852

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