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**1981 ANNUAL REPORT OF
THE BOARD OF TRUSTEES OF THE
FEDERAL SUPPLEMENTARY MEDICAL
INSURANCE TRUST FUND**

COMMUNICATION

From

**THE BOARD OF TRUSTEES,
FEDERAL SUPPLEMENTARY MEDICAL
INSURANCE TRUST FUND**

Transmitting

**THE 1981 ANNUAL REPORT OF THE BOARD,
PURSUANT TO
SECTION 1841(b) OF THE SOCIAL SECURITY ACT**

LETTER OF TRANSMITTAL

Board of Trustees of the
Federal Supplementary Medical Insurance Trust Fund
Washington, D.C, July 2, 1981

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES
Washington, D.C.

Sir: We have the honor of transmitting to you the 1981 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund (the 16th such report), in compliance with the provisions of section 1841(b) of the Social Security Act.

Respectfully,

DONALD T. REGAN,
Secretary of the Treasury, and
Managing Trustee of the Trust Fund

RAYMOND J. DONOVAN,
Secretary of Labor,
and Trustee

RICHARD S. SCHWEIKER,
Secretary of Health and
Human Services, and Trustee

CAROLYNE K. DAVIS, Ph.D.,
Administrator of the Health Care Financing
Administration, and Secretary,
Board of Trustees

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1981 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND

THE BOARD OF TRUSTEES

The Federal Supplementary Medical Insurance Trust Fund, established on July 30, 1965, is held by the Board of Trustees under the authority of section 1841(b) of the Social Security Act, as amended. The board is comprised of three members who serve in an ex officio capacity. The members of the Board are the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The Secretary of the Treasury is designated by law as the Managing Trustee. The Administrator of the Health Care Financing Administration is Secretary of the Board. The Board of Trustees reports to the Congress once each year in compliance with section 1841(b)(2) of the Social Security Act. This is the 1981 annual report, the sixteenth such report.

HIGHLIGHTS

- (a) Disbursements of the supplementary medical insurance trust fund increased 21.8 percent in fiscal year 1980 over 1979. Most of this increase resulted from higher physician fees recognized by the program and the use of more physician services by program enrollees.
- (b) Income to the trust fund increased 4.4 percent in fiscal year 1980 over 1979. This resulted from increased adequate actuarial rates which determine the general revenue contribution and from increased enrollment in the program.
- (c) The trust fund decreased \$462 million to \$4,532 million during 1980.
- (d) In December of 1980, the Secretary of Health and Human Services promulgated a standard monthly premium rate of \$11.00 and adequate actuarial rates of \$22.60 for the aged enrollees and \$36.60 for the disabled enrollees for the 12-month period ending June 30, 1982.
- (e) An average 24.4 million persons aged 65 and over were enrolled in the program in fiscal year 1980. This is about 95 percent of the aged population. An additional 2.7 million disabled beneficiaries were enrolled in the same period.

SOCIAL SECURITY AMENDMENTS SINCE THE 1980 TRUSTEES REPORT

Public Law 96-499, "The Omnibus Reconciliation Act of 1980," which was enacted on December 5, 1980, has many provisions which have an

impact upon the Federal Supplementary Medical Insurance Trust Fund. They are:

- (1) Limits are imposed on reimbursement for markups of physicians' bills for services performed by independent clinical laboratories. The limit is the lesser of the reasonable charge of the laboratory, or the amount it actually charged the physician, plus a minimal fee for physician handling of the specimen. Effective April 1, 1981.
- (2) An unlimited number of home health visits is provided and occupational therapy becomes a qualifying criterion for such services. Effective July 1, 1981.
- (3) The \$60 deductible applied to home health benefits is eliminated. Effective July 1, 1981.
- (4) Full coverage is extended without deductible or coinsurance for diagnostic tests furnished by a hospital outpatient department and, to the extent practicable, for tests administered in a physician's office (applies only where tests are performed within seven days of hospital admission). Effective upon enactment.
- (5) Comprehensive outpatient rehabilitation facilities are reimbursed as Medicare providers. Effective July 1, 1981.
- (6) Reimbursement is extended to include the costs of certain surgical procedures specified by the Secretary which are performed in ambulatory surgical centers and, under certain conditions, in physicians' offices. Physicians who accept assignment for such procedures will be reimbursed at 100 percent of reasonable charges. Effective upon enactment.
- (7) The annual limit is raised from \$100 to \$500 for reimbursable outpatient services furnished by independently practicing physical therapists. Effective with calendar year 1982.
- (8) Coverage is extended to include services performed by dentists
 - (a) whenever the procedure would have been covered if performed by a physician. Effective July 1, 1981.
- (9) Coverage is extended to include services furnished by optometrists in connection with the condition of aphakia. Effective April 1, 1981.
- (10) Coverage is provided for a reasonable supply of antigens, including a supply forwarded to another physician or rural health clinic for administration. Effective January 1, 1981.
- (11) Coverage is provided for the treatment of plantar warts. Effective July 1, 1981.

- (12) Provisions authorizing presumed periods of coverage by type of diagnosis for skilled nursing facility and home health services are repealed. Effective January 1, 1981.
- (13) Reimbursement for outpatient services to providers is limited to the reasonable cost of services less the copayment amounts charged beneficiaries. Effective upon enactment.
- (14) One hundred percent reimbursement for radiologists and pathologists is limited to physicians who agree to accept assignment for all hospital inpatients. Effective July 1, 1981.
- (15) The requirement that a physician establish a detailed treatment plan for speech pathology services is repealed. Effective January 1, 1981.
- (16) Continuous open enrollment in the SMI program is provided. Effective April 1, 1981.
- (17) Unlimited re-enrollment in the SMI program is provided. Effective April 1, 1981.
- (18) The determination of reasonable charge is based on the date the medical service was rendered rather than the date on which the claim was processed. Effective with bills submitted, or requests for payment made, on or after July 1, 1981.
- (19) States which do not have SMI buy-in agreements may enter into such agreements and those which have buy-in agreements covering only cash assistance recipients may cover other Medicaid eligibles. Effective during calendar year 1981 only.
- (20) Individuals whose State buy-in coverage has ended may terminate coverage effective with the month the Health Care Financing Administration (HCFA) is notified that such coverage is no longer desired, rather than having to continue enrollment for as long as 6 months.
- (21) Section 227 of P.L. 92-603 (concerning reimbursement to physicians in teaching hospitals), which was never implemented, is repealed.
- (22) Medicare would be the secondary payor in accident cases where care could be paid for under liability coverage or under no-fault insurance. Effective upon enactment.
- (23) Medicare reimbursement may be made, prior to payment of the physician bill, to the person with the legal obligation to pay bills for a deceased beneficiary. Effective with claims filed on or after January 1, 1981.

Public Law 96-611, which was enacted on December 28, 1980, provides coverage, without deductible or coinsurance, for pneumococcal vaccine and its administration. Effective date July 1, 1981.

NATURE OF THE TRUST FUND

The Federal Supplementary Medical Insurance Trust Fund was established on July 30, 1965, as a separate account in the United States Treasury. All the financial operations of the supplementary medical insurance program are handled through this fund.

The major sources of receipts of the trust fund are (1) premiums paid by eligible persons who are voluntarily enrolled in the program and (2) contributions of the Federal Government that are authorized to be appropriated and transferred from the general fund of the Treasury. Eligible persons aged 65 and over have been able to enroll in the program since its inception in July 1966. Since July 1973, disabled persons under age 65, who meet certain eligibility requirements, have also been able to enroll in the program.

The premiums paid by participants are based on the standard monthly premium rate, which is the same for participants aged 65 and over and for disabled participants under age 65. Premiums paid for fiscal years 1967 through 1973 were matched by an equal amount of Government contributions. Beginning July 1973, the amount of Government contributions corresponding to premiums paid by each of the two groups of participants is determined by applying a ratio, prescribed in the law for each group, to the amount of premiums received from that group of participants. The ratio is equal to (1) twice the amount of the adequate actuarial rate applicable to the particular group of participants, minus the amount of the standard monthly premium rate, divided by (2) the amount of the standard monthly premium rate.

Standard monthly premium rates and adequate actuarial rates are promulgated each year by the Secretary of Health and Human Services. The standard monthly premium rates in effect from the beginning of the program, July 1966 through June 1981, and the rate promulgated for July 1981 through June 1982 are shown in table 1. Adequate actuarial rates in effect from July 1973 through June 1981, and the rates promulgated for July 1981 through June 1982 are also shown.

TABLE 1.—STANDARD MONTHLY PREMIUM RATES, ACTUARIAL RATES, AND MATCHING RATIOS

	Standard monthly premium rate	Monthly actuarial rate	
		Participants aged 65 and over	Disabled participants under age 65
July 1966 - March 1968	\$3.00	—	—
April 1968 - June 1970	4.00	—	—
12-month period ending June 30 of —			
1971	5.30	—	—
1972	5.60	—	—
1973	5.80	—	—
1974 ¹	6.30	\$6.30	\$14.50
1975	6.70	6.70	18.00
1976	6.70	7.50	18.50
1977	7.20	10.70	19.00
1978	7.70	12.30	25.00
1979	8.20	13.40	25.00
1980	8.70	13.40	25.00
1981	9.60	16.30	25.50
1982	11.00	22.60	36.60

¹In accordance with limitations on the costs of health care imposed under phase III of the Economic Stabilization program, the standard premium rate for July and August 1973 was set at \$5.80 and \$6.10, respectively. Effective September 1973, the rate increased to \$6.30.

Another source from which receipts of the trust fund are derived is interest received on investments held by the fund. The investment procedures of the fund are described later in this section.

Section 201(i) of the Social Security Act authorizes the Managing Trustee to accept and deposit in the trust fund unconditional money gifts or bequests made for the benefit of the fund or for any activity financed through the fund.

Expenditures for benefit payments and administrative expenses under the program are paid out of the trust fund. All expenses incurred by the Department of Health and Human Services and by the Department of the Treasury in carrying out the supplementary medical insurance provisions of title XVIII of the Social Security Act are charged to the trust fund. The Secretary of Health and Human Services certifies benefit payments to the Managing Trustee, who makes the payments from the trust fund in accordance therewith.

Hospitals, at their option, are permitted to combine their billing for both hospital costs and physician components of radiology and pathology services rendered hospital inpatients by hospital-based physicians. Where hospitals elect this billing procedure, payments are made initially from the Hospital Insurance Trust Fund, with reimbursement later to it from the Supplementary Medical Insurance Trust Fund. The reimbursements so made are on a provisional basis and are subject to adjustment, with appropriate interest allowances, as the actual experience develops and is analyzed.

The Social Security Amendments of 1967 and 1972 authorize the Secretary of Health and Human Services to develop and conduct a broad range of experiments and demonstration projects designed to determine various methods of increasing efficiency and economy in providing health care services, while maintaining the quality of such services, under the hospital insurance and supplementary medical insurance programs. A sizeable portion of such costs of such experiments and demonstration projects are paid out of the hospital insurance and supplementary medical insurance trust funds, with the remainder funded through general revenues.

Congress has authorized expenditures from the trust funds for construction, rental, and lease or purchase contracts of office buildings and related facilities for use in connection with the supplementary medical insurance program. Both the capital costs of construction financed directly from the trust fund and the rental, lease, or purchase contract costs of acquiring facilities are included in trust fund expenditures. In 1972-75, construction of several large facilities was authorized under purchase contract authority, wherein initial capital costs were borne by the private sector. Under this method of facilities acquisition, trust fund expenditures for use and ultimate Government ownership of a facility are made over periods of from 10 to 30 years. Whatever the manner of acquisition, the net worth of facilities and other fixed capital assets is not carried in the statement of the assets of the trust fund presented in this report. This is because the value of fixed capital assets does not represent funds available for benefit or administrative expenditures and, therefore, is not viewed as being a consideration in assessing the actuarial status of the funds.

That portion of the trust fund which, in the judgment of the Managing Trustee, is not required to meet current expenditures for benefits and administration is invested in interest-bearing obligations of the U.S. Government (including special public-debt obligations described below), in obligations guaranteed as to both principal and interest by the United States, or in certain federally sponsored agency obligations that are designated in the laws authorizing their issuance as lawful investments for fiduciary and trust funds under the control and authority of the United States or any officer of the United States. Obligations of these types may be acquired on original issue at the issue price or by purchase of outstanding obligations at their market price.

The Social Security Act authorizes the issuance of special public-debt obligations for purchase exclusively by the trust fund. The law requires that such special public-debt obligations shall bear interest at a rate based on the average market yield (computed on the basis of market quotations as of the end of the calendar month next preceding the date of such issue) on all marketable interest-bearing obligations of the United

States forming a part of the public debt which are not due or callable until after the expiration of 4 years from the end of such calendar month.

**SUMMARY OF THE OPERATIONS OF THE TRUST FUND,
FISCAL YEAR 1980**

A statement of the income and disbursements of the Federal Supplementary Medical Insurance Trust Fund in fiscal year 1981 and of the assets of the fund at the beginning and end of the fiscal year is presented in table 2. Comparable amounts for fiscal year 1980 are also shown in the table.

**TABLE 2.—STATEMENT OF OPERATIONS OF THE SUPPLEMENTARY MEDICAL
INSURANCE TRUST FUND DURING FISCAL YEARS 1979 AND 1980**

(In thousands)

	Fiscal year 1979	Fiscal year 1980
Total assets of the trust fund, beginning of period.	\$3,968,425	\$4,993,913
Receipts:		
Premiums from participants:		
Participants aged 65 and over.	2,372,679	2,636,849
Disabled participants under age 65.	262,813	290,862
Total premiums.	2,635,492	2,927,711
Transfers from general fund of the Treasury:		
Government contributions:		
For premiums received from participants aged 65 and over.	5,459,406	5,601,297
For premiums received from disabled participants under age 65.	1,368,383	1,321,754
Total Government contributions.	6,827,790	6,923,051
Interest on delayed transfers of Government contributions.	12,995	8,663
Total transfers from general fund of the Treasury.	6,840,785	6,931,713
Interest		
Interest on Investments.	362,357	416,805
Interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs ¹	431	-1,295
Total interest.	362,787	415,510
Total receipts.	9,839,064	10,274,935
Disbursements:		
Benefit payments.		
Paid directly from the trust fund for costs of health services.	8,250,653	10,136,707
Transfers to the hospital insurance trust fund for reimbursement of interest loss related to transfer payments made in conjunction with the costs of radiology and pathology services ²	6,000	6,000
Total benefit payments.	8,256,653	10,142,707
Costs of experiments and demonstration projects ²	2,423	1,223
Administrative expenses:		
Department of Health and Human Services ³	549,768	577,968
Treasury Department.	67	47
Railroad Retirement Board.	1,796	0
Office of Personnel Management.	62	0
Construction of facilities.	196	2,206
Interfund transfers due to adjustment in allocation of—		
Administrative expenses ⁴	2,983	13,122
Construction costs ⁴	-367	69
Gross administrative expenses.	554,504	593,412
Less receipts from sale of surplus supplies, materials, etc.	5	85
Net administrative expenses.	554,499	593,327
Total disbursements.	8,813,575	10,737,257
Net addition to the trust fund.	1,025,489	-462,322
Total assets of the trust fund, end of period.	\$4,993,913	4,531,591

¹A positive figure represents a transfer of interest to the supplementary medical insurance trust fund from the other trust funds. A negative figure represents a transfer of interest from the supplementary medical insurance trust fund to the other trust funds.

²For explanation, see text.

³Includes administrative expenses of the carriers and intermediaries.

⁴A positive figure represents a transfer from the supplementary medical insurance trust fund to the other trust funds. A negative figure represents a transfer to the supplementary medical insurance trust fund from the other trust funds.

NOTE: Totals do not necessarily equal the sum of rounded components.

The total assets of the trust fund amounted to \$4,994 million on September 30, 1979. During fiscal year 1980, total receipts amounted to \$10,275 million, and total disbursements were \$10,737 million. Total assets thus decreased \$462 million during the year to a total of \$4,532 million on September 30, 1980.

Of the total receipts, \$2,637 million represented premium payments by (or on behalf of) participants aged 65 and over, and \$291 million represented premium payments by (or on behalf of) disabled participants under age 65. Total premium payments amounted to \$2,928 million, an increase of 11.1 percent over the amount of \$2,635 million for the preceding year. This increase in premiums from participants resulted primarily from (1) the growth in the number of persons enrolled in the supplementary medical insurance program and (2) the increase from \$8.20 to \$8.70 per month in the standard premium rate that became effective on July 1, 1979, and the increase from \$8.70 to \$9.60 per month in the standard premium rate that became effective on July 1, 1980.

Contributions received from the general fund of the treasury amounted to \$6,932 million. This amount consisted of \$5,601 million representing contributions relating to premiums paid by participants aged 65 and over, \$1,322 million representing contributions relating to the premiums paid by disabled participants under age 65, and \$9 million in interest on delayed transfers of Government contributions.

The remaining \$416 million of receipts consisted almost entirely of interest on the investments of the trust fund.

Of the \$10,737 million in total disbursements, \$10,137 million represented benefits paid directly from the trust fund for health services covered under Title XVIII of the Social Security Act. In addition, transfers were made to the hospital insurance trust fund consisting of \$6 million to adjust for the loss of interest caused by the delay in transferring payments for the costs of radiology and pathology services that were paid initially from the hospital insurance trust fund but that were liabilities of the supplementary medical insurance trust fund. Total benefit payments from the trust fund in fiscal year 1980, therefore, amounted to \$10,143 million, an increase of 22.8 percent over the corresponding amount of \$8,257 million paid in the preceding year. An additional \$1 million in disbursements constituted payment for costs of experiments and demonstration projects in providing health care services.

The remaining \$593 million of disbursements was for net administrative expenses. Administrative expenses are allocated and charged directly to each of the four trust funds—old-age and survivors insurance, disability insurance, hospital insurance, and supplementary medical insurance—on the basis of provisional estimates. Similarly, the expenses of administering other programs of the Health Care Financing

Administration are also allocated and charged directly to the general fund of the Treasury on a provisional basis. Periodically, as actual experience develops and is analyzed, adjustments to the allocations of administrative expenses and costs of construction for prior periods are affected by interfund transfers, including transfers between the hospital insurance and supplementary medical insurance trust funds and the program management general fund account, with appropriate interest allowances.

In table 3, the experience with respect to actual amounts of participants' premiums, Government contributions, and benefit payments in fiscal year 1980 is compared with the estimates for fiscal year 1980 which appeared in the 1979 and 1980 annual reports. The actual experience was relatively close to the estimates for premiums, Government contributions, and benefit payments.

TABLE 3.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND, FISCAL YEAR 1980

(Dollar amounts in millions)

Item	Actual amount	Comparison of actual experience with estimates for FY 1980 published in -			
		1980 report		1979 report	
		Estimated amount	Actual as percentage of estimate	Estimated amount	Actual as percentage of estimate
Premiums from Participants	\$2,928	\$2,912	101	\$2,916	100
Government Contributions	6,932	7,046	98	7,078	98
Benefit Payments	10,144	9,767	104	9,559	106

The assets of the trust fund at the end of fiscal year 1979 totaled \$4,994 million, consisting of \$4,974 million in the form of obligations of the U.S. Government and an undisbursed balance of \$20 million. The assets of the trust fund at the end of fiscal year 1980 totaled \$4,532 Million, consisting of \$4,558 million in the form of obligations of the U.S. Government and as an offset, an extension of credit of \$26 million against securities to be redeemed. Table 4 shows a comparison of the total assets of the fund and their distribution at the end of fiscal year 1979 and at the end of fiscal year 1980. A comparison of assets of the trust fund with liabilities for incurred but unpaid benefits (and related administrative expenses) is shown in a later section.

**TABLE 4.—ASSETS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND
AT THE END OF FISCAL YEARS 1980 AND 1981¹**

	September 30, 1979	September 30, 1980
Investments in public-debt obligations sold only to this fund (special Issues):		
Certificates of Indebtedness:		
8 3/4-percent, 1980	\$162,278,000.00	—
9 -percent, 1980	110,722,000.00	—
11 1/8-percent, 1981	—	\$198,647,000.00
Bonds:		
7 1/8-percent, 1981	56,246,000.00	—
7 1/8-percent, 1982	56,245,000.00	53,210,000.00
7 1/8-percent, 1983	56,245,000.00	56,245,000.00
7 1/8-percent, 1984	56,245,000.00	56,245,000.00
7 1/8-percent, 1985	56,245,000.00	56,245,000.00
7 1/8-percent, 1986	56,245,000.00	56,245,000.00
7 1/8-percent, 1987	56,245,000.00	56,245,000.00
7 1/8-percent, 1988	56,245,000.00	56,245,000.00
7 1/8-percent, 1989	56,245,000.00	56,245,000.00
7 1/8-percent, 1990	56,246,000.00	56,246,000.00
7 1/8-percent, 1991	56,246,000.00	56,246,000.00
7 1/8-percent, 1992	137,816,000.00	137,816,000.00
7 3/8-percent, 1981	11,547,000.00	—
7 3/8-percent, 1982	11,547,000.00	11,547,000.00
7 3/8-percent, 1983	11,546,000.00	11,546,000.00
7 3/8-percent, 1984	11,546,000.00	11,546,000.00
7 3/8-percent, 1985	11,546,000.00	11,546,000.00
7 3/8-percent, 1986	11,547,000.00	11,547,000.00
7 3/8-percent, 1987	11,547,000.00	11,547,000.00
7 3/8-percent, 1988	11,547,000.00	11,547,000.00
7 3/8-percent, 1989	11,547,000.00	11,547,000.00
7 3/8-percent, 1990	73,510,000.00	73,510,000.00
7 1/2-percent, 1981	8,060,000.00	—
7 1/2-percent, 1982	8,060,000.00	8,060,000.00
7 1/2-percent, 1983	8,061,000.00	8,061,000.00
7 1/2-percent, 1984	8,061,000.00	8,061,000.00
7 1/2-percent, 1985	8,061,000.00	8,061,000.00
7 1/2-percent, 1986	8,061,000.00	8,061,000.00
7 1/2-percent, 1987	8,061,000.00	8,061,000.00
7 1/2-percent, 1988	8,061,000.00	8,061,000.00
7 1/2-percent, 1989	8,061,000.00	8,061,000.00
7 1/2-percent, 1990	8,060,000.00	8,060,000.00
7 1/2-percent, 1991	81,570,000.00	81,570,000.00
7 5/8-percent, 1981	61,964,000.00	—
7 5/8-percent, 1982	61,964,000.00	61,964,000.00
7 5/8-percent, 1983	61,964,000.00	61,964,000.00
7 5/8-percent, 1984	61,964,000.00	61,964,000.00
7 5/8-percent, 1985	61,964,000.00	61,964,000.00
7 5/8-percent, 1986	61,963,000.00	61,963,000.00
7 5/8-percent, 1987	61,963,000.00	61,963,000.00
7 5/8-percent, 1988	61,963,000.00	61,963,000.00
7 5/8-percent, 1989	61,963,000.00	61,963,000.00
8 1/4-percent, 1981	115,977,000.00	—
8 1/4-percent, 1982	115,978,000.00	115,978,000.00
8 1/4-percent, 1983	115,978,000.00	115,978,000.00
8 1/4-percent, 1984	115,978,000.00	115,978,000.00
8 1/4-percent, 1985	115,978,000.00	115,978,000.00
8 1/4-percent, 1986	115,978,000.00	115,978,000.00
8 1/4-percent, 1987	115,978,000.00	115,978,000.00
8 1/4-percent, 1988	115,978,000.00	115,978,000.00
8 1/4-percent, 1989	115,978,000.00	115,978,000.00
8 1/4-percent, 1990	115,978,000.00	115,978,000.00
8 1/4-percent, 1991	115,978,000.00	115,978,000.00
8 1/4-percent, 1992	115,978,000.00	115,978,000.00
8 1/4-percent, 1993	253,794,000.00	253,794,000.00
8 3/4-percent, 1980	126,825,000.00	—

**TABLE 4.—ASSETS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND
AT THE END OF FISCAL YEARS 1980 AND 1981¹**

	September 30, 1979	September 30, 1980
8 3/4-percent, 1981	72,935,000.00	—
8 3/4-percent, 1982	72,935,000.00	72,935,000.00
8 3/4-percent, 1983	72,935,000.00	72,935,000.00
8 3/4-percent, 1984	72,935,000.00	72,935,000.00
8 3/4-percent, 1985	72,935,000.00	72,935,000.00
8 3/4-percent, 1986	72,934,000.00	72,934,000.00
8 3/4-percent, 1987	72,934,000.00	72,934,000.00
8 3/4-percent, 1988	72,934,000.00	72,934,000.00
8 3/4-percent, 1989	72,934,000.00	72,934,000.00
8 3/4-percent, 1990	72,934,000.00	72,934,000.00
8 3/4-percent, 1991	72,934,000.00	72,934,000.00
8 3/4-percent, 1992	72,934,000.00	72,934,000.00
8 3/4-percent, 1993	72,934,000.00	72,934,000.00
8 3/4-percent, 1994	326,728,000.00	326,728,000.00
9 3/4-percent, 1995	—	115,003,000.00
Total investments in public-debt obligations	4,974,022,000.00	4,558,083,000.00
Undisbursed balance	19,891,272.88	-26,491,686.18 ²
Total assets	4,993,913,272.88	4,531,591,313.82

¹The assets are carried at par value, which is the same as book value.

²The negative figure represented an extension of credit which was covered by redemptions of securities on the first day of the following month.

The net increase in the par value of the investments owned by the fund during fiscal year 1979 amounted to \$953 million. New securities at a total par value of \$11,190 million were acquired during the fiscal year through the investment of receipts and reinvestments of funds made available from the redemption of securities. The par value of securities redeemed during the year was \$10,237 million. Included in these amounts is \$9,788 million in certificates of indebtedness that were acquired, and \$9,983 million in certificates of indebtedness that were redeemed, within the fiscal year.

The net decrease in the par value of the investments held by the fund during fiscal year 1980 amounted to \$416 million. New securities at a total par value of \$10,474 million were acquired during the fiscal year through the investment of receipts and reinvestment of funds made available from the redemption of securities. The par value of securities redeemed during the year was \$10,890 million. Included in these amounts is \$10,190 million in certificates of indebtedness that were acquired, and \$10,264 million in certificates of indebtedness that were redeemed, within the fiscal year.

The effective annual rate of interest earned by the assets of the supplementary medical insurance trust fund during the 12 months ending on June 30, 1980, was 8.3 percent. (This period is used because interest on special issues is paid semiannually on June 30 and December 31.) The interest rate on special issues purchased by the trust fund in June 1980 was 9¾ percent, payable semiannually.

**EXPECTED OPERATIONS AND STATUS OF THE TRUST
FUND DURING THE PERIOD OCTOBER 1, 1980 TO
DECEMBER 31, 1983**

Financing for the supplementary medical insurance program is established annually on the basis of standard monthly premium rates (paid by or on behalf of the participants) and adequate actuarial rates (on which general revenue contributions are based) which are applicable to a period of July 1 through the following June 30. In recent years, allowable fee limits for physician services have also been established to apply to the same July 1 to June 30 period.

Standard premium rates and adequate actuarial rates have been promulgated for periods through June 30, 1982. It has been assumed in this report that financing after that time will be established to cover the incurred expenses of the program.

The projections shown in the following tables are based on two sets of economic assumptions labeled alternative A and alternative B. These alternatives reflect different levels of expectation as to the enactment and effectiveness of the President's economic program. Appendix A presents an explanation of the effects of alternative A and alternative B on the projections in this report.

Under both projections it is assumed that allowable fees for physician services will increase an average of 10.0 percent for the 12-month period ending June 30, 1981 and will increase an average of 10.3 percent for the 12-month period ending June 30, 1982. The costs per enrollee for institutional and other services under part B are projected to increase an average of 22 percent for the 12-month period ending June 30, 1981 over the previous 12 months and an additional 5 percent for the 12-month period ending June 30, 1982. These values reflect the implementation effect of Public Law 96-499 on the cost per enrollee increases.

Table 5 shows the projected operations of the trust fund on a fiscal year basis through fiscal year 1983. Table 6 shows the corresponding development on a calendar year basis. The trust fund decreased slightly in fiscal year 1980 due primarily to the fact that actual expenditures were greater than anticipated at the time the financing for this period was established. At the time the actuarial rates were promulgated for the 12-month period ending June 30, 1981, it appeared that the assets were more than sufficient to cover the incurred costs of the program and provide an appropriate contingency. Therefore the actuarial rates for this period were set to reduce the assets to a more appropriate level. In addition, the current estimate for expenditures exceeds the estimate made at the time of the promulgation. The combination of these two factors will reduce the assets, at the end of the 12-month period ending June 30, 1981, to a level which while adequate to cover program payments, is not sufficient to cover outstanding

liabilities. Thus, the actuarial rates for the 12-month period ending June 30, 1982 were promulgated with specific margins to build assets to a desirable level. As a result the fund is projected to increase substantially to \$6.5 billion under both alternatives by the end of fiscal year 1982.

TABLE 5.—ESTIMATED PROGRESS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) FISCAL YEARS 1981-1983 AND ACTUAL DATA FOR 1967-1980

(In millions)

Fiscal Year	Income				Disbursements			Balance in fund at end of year ²
	Premiums from participants	Government contributions ¹	Interest on fund	Total Income	Benefit payments	Adminis- trative expenses	Total disburse- ments	
Historical Data:								
1967	\$647	\$623	\$15	\$1,285	\$664	\$135 ⁴	\$799	\$486
1968	698	634	21	1,353	1,390	142	1,532	307
1969	903	984	24	1,911	1,645	195	1,840	378
1970	936	928	12	1,876	1,979	217	2,196	57
1971	1,253	1,245	18	2,516	2,035	248	2,283	290
1972	1,340	1,365	29	2,734	2,255	289	2,544	481
1973	1,427	1,430	45	2,902	2,391	246	2,637	746
1974	1,704	2,029	76	3,809	2,874	409	3,283	1,272
1975	1,887	2,330	105	4,322	3,765	405	4,170	1,424
1976	1,951	2,939	104	4,994	4,672	528	5,200	1,219
Interim ⁴	539	878	4	1,421	1,269	132	1,401	1,239
1977	2,193	5,053	137	7,383	5,867	475	6,342	2,279
1978	2,431	6,386	228	9,045	6,852	504	7,356	3,968
1979	2,635	6,841	363	9,839	8,259	555	8,814	4,994
1980	2,928	6,932	415	10,275	10,144	593	10,737	4,532
Projected:								
Alternative A:								
1981	3,310	8,737	337	12,384	12,300	704	13,004	3,911
1982	3,841	13,441	412	17,694	14,372	727	15,099	6,506
1983	4,335	14,314	606	19,255	17,004	792	17,796	7,965
Alternative B:								
1981	3,310	8,737	337	12,384	12,300	704	13,004	3,911
1982	3,841	13,446	414	17,701	14,378	727	15,105	6,507
1983	4,342	14,366	611	19,319	17,055	792	17,847	7,980

¹The payments shown as being from the general fund of the Treasury include certain interest-adjustment items.

²The financial status of the program depends on both the total net assets and the liabilities of the program (See Table 8).

³Administrative expenses shown include those paid in FY 1966 and 1967.

⁴Interim Period is the period from July 1, 1976 to September 30, 1976 and is the transitional period between fiscal years beginning July 1 and fiscal years beginning October 1.

TABLE 6.— ESTIMATED PROGRESS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) CALENDAR YEARS 1981-1983 AND ACTUAL DATA FOR 1966-1980
(In millions)

Calendar Year	Income				Disbursements			Balance in fund at end of year ²
	Premium from participants	Government contributions ¹	Interest on Fund	Total Income	Benefit payments	Administrative expenses	Total disbursements	
Historical Data:								
1966	\$322	\$0	\$2	\$324	\$128	\$75	\$203	\$122
1967	640	933	24	1,597	1,197	110	1,307	412
1968	832	858	21	1,711	1,518	184	1,702	421
1969	914	907	18	1,839	1,865	196	2,061	199
1970	1,096	1,093	12	2,201	1,975	237	2,212	188
1971	1,302	1,313	24	2,639	2,117	260	2,377	450
1972	1,382	1,389	37	2,808	2,325	289	2,614	643
1973	1,550	1,705	57	3,312	2,526	318	2,844	1,111
1974	1,804	2,225	95	4,124	3,318	410	3,728	1,506
1975	1,918	2,648	107	4,673	4,273	462	4,735	1,444
1976	2,060	3,810	107	5,977	5,080	542	5,622	1,799
1977	2,247	5,386	172	7,805	6,038	467	6,505	3,099
1978	2,470	6,287	299	9,056	7,252	503	7,755	4,400
1979	2,719	6,645	404	9,768	8,708	557	9,265	4,902
1980	3,011	7,455	408	10,874	10,635	610	11,245	4,530
Projected:								
Alternative A:								
1981	3,446	10,930	374	14,750	12,806	710	13,516	5,764
1982	3,964	13,236	509	17,709	15,054	743	15,797	7,676
1983	4,456	14,668	664	19,768	17,741	808	18,549	8,895
Alternative B:								
1981	3,446	10,930	376	14,752	12,807	710	13,517	5,765
1982	3,964	13,246	513	17,723	15,067	743	15,810	7,678
1983	4,473	14,753	655	19,881	17,824	808	18,632	8,927

¹The payments shown as being from the general fund of the Treasury include certain interest-adjustment items.

²The financial status of the program depends on both the total net assets and the liabilities of the program (See Table 8).

ACTUARIAL STATUS OF THE TRUST FUND

1. Actuarial Soundness of the Supplementary Medical Insurance Program

The concept of actuarial soundness, as it applied to the supplementary medical insurance program, is closely related to the concept as it applies to private group insurance. The supplementary medical insurance program essentially is yearly renewable term insurance intended to be self-supporting from premium income paid by the enrollees and from income contributed from general revenue in proportion to premium payments. The law requires the Secretary of Health and Human Services to establish income on the basis of incurred costs. That is, the income to the program during a 12-month period for which financing is being established must be sufficient to pay for services (including associated administrative costs) expected to be rendered during that period even though payment for some of these services will not be made until after the close of the period. The portion of income required to cover those benefits not paid until after the close of the year is added to the trust fund until needed. Thus, the amount of assets in the trust fund at any time should be no less than the costs of the benefits and administration incurred but not yet paid. Since the income per enrollee (premium plus government contribution rate) is established prospectively, it is subject to projection error. As a result, the income to the program may not be equal to incurred costs; therefore trust fund assets should be maintained at a level which is adequate to cover the impact of a moderate degree of projection error as well as the value of incurred but unpaid expenses.

In testing the actuarial soundness of the supplementary medical insurance program, it is not appropriate to look beyond the period for which the enrollee premium rate and level of general revenue financing have been established. The primary tests of actuarial soundness, then, are that (1) income for years for which financing has been established be sufficient to meet the projected benefits and associated administrative expenses incurred for that period, (2) assets be sufficient to cover projected liabilities which will have been incurred by the end of that time but will not have been paid yet, and (3) assets be sufficient further to protect against the possibility that cost increases under the program will be somewhat higher than assumed in the projection. Even if these tests of actuarial soundness are not met, the program can continue to operate if the trust fund remains at a level adequate to permit the payment of claims as presented.

2. INCURRED EXPERIENCE OF THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM

The tests of actuarial soundness of the supplementary medical insurance program noted above rely on the incurred experience of the program. Cash disbursements for benefits and administrative expenses by themselves are misleading, due to the relatively large liabilities outstanding at any time for benefits and processing costs that must be paid for services already performed. These liabilities result from the lag between the time that services are performed and the time that payments for them are made.

The experience of the program is substantially more difficult to determine on an incurred basis than on a cash basis. Payment for some services is reported only on a cash basis, and the incurred experience must be inferred from the cash payment information. For recent time periods, the tabulations of bills are incomplete due to normal processing delays. Finally, since bills are tabulated only for a sample of beneficiaries, the data is subject to bias and random fluctuation inherent in the sampling process.

Table 7 shows the estimated transactions of the trust fund on an incurred basis. For the reasons stated above, the incurred experience must be viewed as an estimate even for historical years. Various checks, such as cash outlay data, assure that the estimates are reasonably close, however.

**TABLE 7.—ESTIMATED INCOME AND DISBURSEMENTS INCURRED UNDER
SUPPLEMENTARY MEDICAL INSURANCE PROGRAM, 12-MONTH PERIODS ENDING
JUNE 30, 1967-1982**

(In millions)

12-month period ending June 30,	Premiums from participants	Government Contri- butions	Interest on fund	Benefit payments	Adminis- trative expenses	Net operations in year
Historical Data:						
Historical						
1967	\$647	\$647	\$15	\$1,108	\$190 ¹	\$11
1968	698	698	21	1,442	147	-172
1969	903	903	23	1,766	209	-146
1970	936	936	12	1,930	212	-258
1971	1,253	1,253	17	2,090	255	178
1972	1,340	1,340	29	2,289	293	127
1973	1,427	1,426	45	2,499	257	142
1974	1,704	2,031	76	3,151	448	212
1975	1,887	2,395	108	3,933	422	35
1976	1,951	2,972	109	4,822	545	-335
1977	2,156	4,697	158	5,881	508	622
1978	2,358	5,991	247	7,060	509	1,027
1979	2,601	6,570	371	8,319	595	628
1980	2,823	6,627	421	10,058	613	-800
Projected:						
Alternative A:						
1981	3,174	8,215	337	12,355	705	-1,334
1982	3,716	12,512	427	14,173	742	1,740
Alternative B:						
1981	3,174	8,215	337	12,355	705	-1,334
1982	3,716	12,512	429	14,176	742	1,739

¹Includes administrative expenses incurred prior to the beginning of the program.

3. ACCUMULATED EXCESS OF ASSETS OVER LIABILITIES

The liability outstanding at any time for the cost of services performed for which no payment has been made is referred to as "benefits incurred but unpaid." Estimates of the amount of benefits incurred but unpaid as of June 30 of each year, and of the administrative expenses related to processing these benefits, appear in table 8. For most years of the program, assets have not been as large as outstanding liabilities. Nonetheless, the fund has remained positive, allowing claims to be paid.

Program financing has been established through June 1982. On the basis of this financing the estimated excess of assets over liabilities of \$1,272 million at the end of June 1980 is projected to decrease to -\$62 million at the end of June 1981, and then to increase to \$1,678 million under Alternative A and to \$1,677 under Alternative B at the end of June 1982. These projected values as of June 30, 1982 amount to 9 percent of incurred expenditures for the following 12-month period, a level which is sufficient to cover the impact of a moderate degree of projection error.

**TABLE 8.—SUMMARY OF ESTIMATED ASSETS AND LIABILITIES OF THE
SUPPLEMENTARY MEDICAL INSURANCE PROGRAM, ON JUNE 30, 1967-1982**

(Dollar amounts in millions)

12-month period ending June 30,	Balance in trust fund	Government contributions due but unpaid	Total assets	Benefits incurred but unpaid	Administrative cost incurred but unpaid	Total liab- ilities	Excess of assets over liabilities	Ratio ¹
Historical:								
1967	\$486	\$24	\$510	\$444	\$56	\$500	\$10	.01
1968	307	88	395	496	60	556	-161	-.08
1969	378	7	385	617	74	691	-306	-.14
1970	57	15	72	568	69	637	-565	-.24
1971	290	22	312	623	76	699	-387	-.15
1972	481	-3	478	657	81	738	-260	-.09
1973	746	-7	739	765	92	857	-118	-.03
1974	1,272	-5	1,267	1,042	131	1,173	94	.02
1975	1,424	67	1,491	1,210	149	1,359	132	.03
1976	1,219	105	1,324	1,361	165	1,526	-202	-.03
1977	2,170	91	2,261	1,653	190	1,843	418	.06
1978	3,786	40	3,826	2,156	226	2,382	1,444	.16
1979	4,880	2	4,882	2,555	255	2,810	2,072	.19
1980	4,657	0	4,657	3,097	288	3,385	1,272	.10
Projected:								
Alternative A:								
1981	3,859	0	3,859	3,604	317	3,921	-62	.00
1982	6,030	0	6,030	4,014	338	4,352	1,678	.09
Alternative B:								
1981	3,859	0	3,859	3,604	317	3,921	-62	.00
1982	6,029	0	6,029	4,014	338	4,352	1,677	.09

¹Ratio of the excess assets over liabilities to the following year's total incurred expenditures.

4. SENSITIVITY TESTING

Some of the assumptions underlying the projection presented in this report are highly uncertain, and variations in these assumptions would have a substantial impact on expenditures. In order to test the future status of the program under varying assumptions, a low cost projection and a high cost projection were prepared by varying these key assumptions. The low and high cost alternative sets of assumptions are intended to reflect growth rates for the various components of program costs which are more favorable and adverse, respectively, than those of the intermediate projection and which are not unreasonable themselves in light of the nature and historical experience of the program. As such, they provide a range of financial outcomes within which the actual experience of the program might reasonably be expected to fall.

Table 9 indicates that, under the low cost assumptions, trust fund assets would exceed liabilities significantly by the end of June 1982 (the period through which financing has been established), reaching a level of 22 percent of the following year's incurred expenditures. If these low growth rates were actually to materialize, then subsequent financing rates could be adjusted downward in order to lower the excess of assets over liabilities to more appropriate levels. Under the high cost assumptions, trust fund liabilities would exceed assets by the end of June 1982, reaching a level of -2 percent of the following year's incurred

expenditures. If these high growth rates were to occur, the subsequent financing rates would have to be adjusted upward in order to generate more appropriate levels for the excess of assets over liabilities.

Table 9.—ACTUARIAL STATUS OF THE SMI TRUST FUND UNDER THREE SETS OF ASSUMPTIONS FOR FINANCING FOR THE 12-MONTH PERIOD ENDING JUNE 30 OF THE YEAR SHOWN

	Intermediate projection this report ¹			Low cost projection			High cost projection		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
Per enrollee increase over prior year (in percent):									
Physician fees ²									
Aged	8.6	10.0	10.3	8.1	9.5	9.8	9.1	10.5	10.8
Disabled	8.6	10.0	10.3	8.1	9.5	9.8	9.1	10.5	10.8
Utilization of physician services ³									
Aged	5.5	7.0	3.2	4.5	5.0	1.2	6.5	9.0	5.2
Disabled	9.0	10.0	6.1	7.0	5.0	1.1	11.0	15.0	11.1
Outpatient hospital services									
Aged	18.8	25.0	15.8	15.8	18.0	5.8	21.8	32.0	25.8
Disabled	20.4	25.0	15.8	12.4	15.0	5.8	28.4	35.0	25.8
Actuarial status (in millions):									
Assets	\$4,657	\$3,859	\$6,029	\$4,657	\$4,327	\$7,564	\$4,657	\$3,375	\$4,391
Liabilities	3,385	3,921	4,352	3,217	3,664	3,963	3,554	4,185	4,775
Assets less liabilities	1,272	-62	1,677	1,440	663	3,601	1,103	-810	-384
Ratio of assets less liabilities to expenditures (In percent) ⁴	9.7	0.0	9.4	11.5	4.8	22.5	8.1	-5.0	-1.9

¹Because of the manner in which alternative economic assumptions affect the projected operations of the supplementary medical insurance program, there is not a substantial difference in the projections based upon the two sets of assumptions. Therefore only one projection, alternative B, is presented here. Appendix A presents an explanation of the effects of alternative A and B on the projections in the report

²As recognized for payment under the program.

³Increase in the number of services received per enrollee and greater relative use of more expensive services.

⁴Ratio of assets less liabilities at the end of the year to the total incurred expenditures during the following year, expressed as a percent.

CONCLUSION

The financing of the supplementary medical insurance program has been established through June 1982, by the promulgation of standard monthly premium rates (paid by or on behalf of each enrollee) of \$9.60 for the year ending June 1981 and \$11.00 for the year ending June 1982 and of adequate actuarial rates which determine the amount to be contributed from general revenue on behalf of each enrollee.

Under both sets of intermediate assumptions used in this report, disbursements from the trust fund are projected to exceed income during fiscal year 1981, and then during fiscal year 1982, income is projected to exceed disbursements. As a result the assets in the trust fund, on a cash basis, are projected to decrease from \$4,532 million at the end of fiscal year 1980 to an estimated \$3,911 million at the end of 1981 and then to increase to an estimated \$6,506 million under alternative A and \$6,507 million under alternative B at the end of fiscal year 1982.

Program assets exceeded liabilities by approximately \$1,272 million at the end of June 1980. During the 12-month period ending June 30, 1981, the assets of the trust fund decrease while liabilities increase, so that by June 30, 1981, liabilities exceed assets by \$62 million. However the financing for the 12-month period ending June 30, 1982 was established to place the trust fund on a sound actuarial basis. By the end of June 1982 assets are projected to exceed liabilities by \$1,678 million under alternative A and by \$1,677 million under alternative B (representing 9 percent of projected incurred expenditures for the following 12-month period). Under more pessimistic assumptions as to cost increases, assets based on financing already established will be insufficient to cover outstanding liabilities. However the trust fund should remain positive allowing claims to be paid. Hence, the financing established through June 1982 is sufficient to cover projected benefit and administrative costs incurred through that time period and to build a level of trust fund assets which is adequate to cover the impact of a moderate degree of projection error.

APPENDIX A

ACTUARIAL METHODOLOGY AND PRINCIPAL ASSUMPTIONS FOR COST ESTIMATES FOR THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM¹

1. Estimates for Aged and Disabled (Excluding ESRD) Enrollees

a. Introduction

Estimates for aged and disabled enrollees--excluding disabled persons with end stage renal disease (ESRD)--are prepared by establishing, as accurately as possible, reasonable charges incurred per enrollee in a recent year (the 12-month period ending June 30, 1979, for this report) and projecting these charges through the estimating period. The per enrollee charges are then converted to reimbursement amounts by subtracting the per enrollee values of the deductible and coinsurance. Aggregate reimbursement amounts are calculated by multiplying the per enrollee reimbursement amounts by the projected enrollment. In order to estimate cash disbursements, an allowance is made for the delay between receipt of service and payment therefor.

Disabled persons with ESRD have per enrollee costs which are higher and quite different in nature from those of most other disabled persons. Hence, program costs for them have been excluded from the analysis in this section and are included in a later section.

b. Establishing a Projection Base

(1) *Physician Services*

Reimbursement amounts for physician services (and small amounts for other services) are paid through organizations acting for the Health Care Financing Administration, referred to as carriers. The carriers determine whether billed services are covered under the program and determine the reasonable charges for the services. A record of the amount reimbursed after reduction for coinsurance and the deductible is transmitted to the central office in the form of a "payment record."

Payment records for 0.1 percent of aged beneficiaries and 1.0 percent of disabled beneficiaries are tabulated by date of service, thus providing a data base which is constructed on an incurred basis. Certain minor adjustments are made to the tabulated sample data to correct for biases and random fluctuation inherent in the sampling process. Having the data on an incurred basis is necessary to meet the statutory requirement

¹Prepared by the Division of Medicare Cost Estimates, Office of Research, Demonstrations and Statistics, Health Care Financing Administration

that the program be financed on this basis; it also makes possible a comparison of program experience with non-program data sources.

As a check on the validity of the projection base, incurred reimbursement amounts are compared with cash expenditures reported by the carriers through an independent reporting system. In a program with continuously increasing incurred reimbursement amounts, cash payments are expected to be slightly lower than incurred expenses (except in the first year of coverage of a service or group of beneficiaries, when the difference should be substantial). These differences between cash and incurred reimbursement amounts occur because of the lag between receipt of services and payment therefor.

(2) Institutional and Other Services

Reimbursement amounts for institutional services under the supplementary medical insurance program are paid by the same fiscal intermediaries that pay for hospital insurance services. The principal institutional services covered under the supplementary medical insurance program are outpatient hospital care and home health agency services. However, due to program changes mandated by P.L. 96-499, most future payments for home health agency services will be made from the hospital insurance trust fund.

Reimbursements for institutional services occur in two stages. Provider bills are submitted to the intermediaries, and interim payments are made on the basis of these bills. The bills are then submitted to the central office, and tabulations for a sample of beneficiaries are prepared in a manner parallel to that for payment records.

At the close of a provider's accounting period, a cost report is submitted and lump-sum payments or recoveries are made to correct for the difference between interim payments made to the provider and the retroactively determined reasonable cost for providing covered services (net of coinsurance and deductible amounts). The amounts of these retroactive settlements are reported on a cash basis, and approximations are necessary to allocate these payments to the time of service.

Group practice prepayment plans are reimbursed directly by the Health Care Financing Administration on a reasonable cost basis. Comprehensive data are available for these payments only on a cash basis, and certain approximations must be made to allocate expenses to the period when services were rendered.

(3) Summary of Historical Data

Table A1 summarizes the incurred reimbursement amounts per enrollee for the various services for each of the 12 month periods ending

June 30, through 1979. Also shown are average enrollment figures for these years. In order to analyze the historical trends in prices and use of services, these reimbursement amounts are converted to the reasonable charges or reasonable costs on which reimbursement was based. This process is necessary largely because the fixed deductible becomes a smaller percentage of charges each year and thus causes reimbursement to rise faster than charges or costs. Table A2 shows the reasonable charges or costs per enrollee corresponding to the reimbursement values shown in table A1

**TABLE A1.—INCURRED REIMBURSEMENT AMOUNTS PER ENROLLEE:
HISTORICAL**

Year ending June 30,	Average enrollment (millions)	All services	Physician	Inpatient radiology and pathology ¹	Outpatient hospital	Home health Agency	Group practice prepayment plan	Independent lab
Aged:								
1967	17.750	\$62.39	\$59.08		\$1.41	\$.79	\$.88	\$.23
1968	18.038	80.01	72.53	\$1.89	2.40	1.49	1.35	.35
1969	18.833	93.72	79.06	6.57	4.23	1.92	1.54	.40
1970	19.312	99.90	82.84	7.14	5.93	2.00	1.51	.48
1971	19.664	106.27	87.80	7.21	7.56	1.68	1.41	.61
1972	20.043	114.22	94.82	6.77	8.58	1.61	1.66	.78
1973	20.428	122.35	100.92	6.99	9.45	2.17	1.88	.94
1974	20.988	134.26	109.94	7.44	11.35	2.03	2.30	1.20
1975	21.504	159.61	126.94	8.70	15.48	3.84	3.02	1.63
1976	22.089	187.60	144.42	10.84	21.30	5.21	3.83	2.00
1977	22.605	220.00	165.76	12.17	28.72	6.54	4.37	2.44
1978	23.133	255.68	193.53	14.84	33.47	6.82	4.09	2.93
1979	23.693	291.68	219.63	16.47	40.69	6.68	4.90	3.31
Disabled (excluding ESRD):								
1974	1.636	117.59	90.23	7.54	13.93	3.46	1.88	.55
1975	1.813	150.09	117.39	8.40	17.37	3.59	2.29	1.05
1976	2.015	178.69	137.70	9.99	21.74	5.14	2.68	1.44
1977	2.229	219.50	160.44	12.92	36.56	4.80	2.83	1.95
1978	2.419	256.05	188.40	14.19	42.83	5.56	2.50	2.57
1979	2.560	298.40	222.43	17.19	47.53	5.15	2.90	3.20

¹Includes services on payment records and those using combined billing; amounts shown are for April 1968 and later when combined billings are authorized and inpatient radiology and pathology charges are reimbursed at 100 percent.

**TABLE A2.—INCURRED REASONABLE CHARGES OR COSTS PER ENROLLEE:
HISTORICAL**

Year ending June 30,	Average enrollment (millions)	All services	Physician	Inpatient radiology and pathology ¹	Outpatient hospital	Home health Agency	Group practice prepayment plan	Independent lab
Aged:								
1967	17.750	\$109.36	\$103.55		\$2.47	\$1.38	\$1.55	\$.41
1966	18.038	128.14	117.21	\$1.89	3.88	2.41	2.18	0.57
1969	18.833	145.58	126.11	6.57	6.74	3.06	2.46	0.64
1970	19.312	154.02	131.18	7.14	9.39	3.16	2.39	0.76
1971	19.664	162.52	137.67	7.21	11.85	2.63	2.21	0.95
1972	20.043	173.14	146.82	6.77	13.28	2.49	2.57	1.21
1973	20.428	186.52	157.39	6.99	14.73	3.01	2.93	1.47
1974	20.988	204.39	171.28	7.44	17.69	2.53	3.58	1.87
1975	21.504	235.91	192.09	8.70	23.43	4.65	4.57	2.47
1976	22.089	270.74	213.62	10.84	31.50	6.16	5.66	2.96
1977	22.605	311.56	240.30	12.17	41.63	7.58	6.34	3.54
1978	23.133	356.12	275.80	14.84	47.70	7.77	5.83	4.18
1979	23.693	401.70	308.93	16.47	57.23	7.52	6.89	4.66
Disabled (excluding ESRD):								
1974	1.636	179.23	141.65	7.54	21.87	4.35	2.95	0.87
1975	1.813	220.30	176.45	8.40	26.11	4.32	3.44	1.58
1976	2.015	256.08	202.11	9.99	31.91	6.03	3.93	2.11
1977	2.229	307.53	229.88	12.92	52.38	5.50	4.06	2.79
1978	2.419	353.51	265.54	14.19	60.37	6.27	3.52	3.62
1979	2.560	406.85	309.35	17.19	66.10	5.73	4.03	4.45

¹Includes services on payment records and those using combined billing; amounts shown are for April 1968 and later when combined billings are authorized and inpatient radiology and pathology charges are reimbursed at 100 percent through.

c. Per Enrollee Increases

(1) *Physician Services*

Per enrollee charges for physician services are affected by a variety of factors. Some of these can be identified explicitly. Others can be recognized only by the fact that the explicitly quantifiable factors do not explain all of the increase in per enrollee charges year-to-year.

Increases in average charge per service are one of the most important elements creating increasing charges per enrollee. The physician fee component of the consumer price index provides an estimate of the historical increases in average charge per service. Increases in this index are shown in the first column of table A3.

TABLE A3.—COMPONENTS OF INCREASES IN TOTAL RECOGNIZED CHARGES PER ENROLLEE FOR PHYSICIAN SERVICES: HISTORICAL

(in percent)

Year ending June 30,	Increase due to price changes				Increase Due to Residual Factors			
	Reduction due to fee screens							
	Increase in physician fee component of CPI	Cumulative effect	Yearly changes	Net increase in reasonable charges	Gross residual factors	Effect of denials	Net residual factors	Total increase in recognized charges per enrollee
Aged:								
1967	7.6	-2.6						
1968	5.9	-3.6	-0.7	5.2	9.4	-1.4	8.0	13.2
1969	6.2	-5.0	-1.4	4.8	3.2	-0.4	2.8	7.6
1970	6.7	-7.5	-2.8	3.9	3.2	-3.1	0.1	4.0
1971	7.5	-10.1	-3.0	4.5	3.7	-3.2	0.5	5.0
1972	5.2	-11.2	-1.1	4.1	2.2	0.4	2.6	6.7
1973	2.6	-11.7	-0.5	2.1	5.7	-0.6	5.1	7.2
1974	5.0	-13.2	-1.6	3.4	6.0	-0.6	5.4	8.8
1975	12.8	-16.2	-3.6	9.2	3.3	-0.3	3.0	12.2
1976	11.4	-18.6	-3.0	8.4	2.7	0.1	2.8	11.2
1977	10.2	-19.5	-0.9	9.3	3.1	0.1	3.2	12.5
1978	8.9	-19.4	0.6	9.5	5.2	0.1	5.3	14.8
1979	8.6	-20.0	-0.5	8.1	4.2	-0.3	3.9	12.0
Disabled (excluding ESRD):								
1974	5.0	-13.2						
1975	12.8	-16.2	-2.6	10.2	14.7	-0.3	14.4	24.6
1976	11.4	-18.6	-2.8	8.6	5.8	0.1	5.9	14.5
1977	10.2	-19.5	-0.9	9.3	4.3	0.1	4.4	13.7
1978	8.9	-19.4	0.7	9.6	5.8	0.1	5.9	15.5
1979	8.6	-20.0	-0.2	8.4	8.4	-0.3	8.1	16.5

Bills submitted to the carriers during a 12-month period beginning July 1 are subject, by statute, to certain limitations on the level of fees to be recognized by the program for reimbursement purposes. The fee level recognized for a particular service by a physician is subject to reduction if it exceeds the median charge that the physician assessed for the same service in the preceding calendar year. This median charge is called the “customary” charge. Fees are subject to further reduction if they exceed the “prevailing” charge for the locality. The prevailing charge is defined as the 75th percentile of customary charges for a particular service in a particular locality. Since July 1, 1975, the rate of increase in prevailing charges has been limited further by the application of an “economic index.” The customary and prevailing charge limits maintained by the carriers are called “fee screens.” Reasonable charges are charges on which reimbursement is based, after they have been reduced by the fee screens.

The average reduction in submitted fees has increased almost every year due both to administrative actions and to differentials in the rate of increase in fees between the calendar year in which the fee screens are established and the July to June period in which the screens are applied. The result is that the net increase in per enrollee charges due to price changes (i.e., the increase in fee levels recognized for reimbursement

purposes) has been less than the increase in submitted fees. The second column of table A3 shows the reduction of charges due to the impact of the fee screen operation to date. The year-to-year changes in this impact are shown in the third column.

Per enrollee charges also have increased each year as a result of more physician visits per enrollee, increasing use of specialists and more expensive techniques, and other factors. The fifth column of table A3 shows the increase in charges per enrollee resulting from these residual causes. Because the measurement of increased recognized charges per service is subject to error, this error is included implicitly under residual causes.

The proportion of charges that has been denied as non-covered care has increased in most years. To the extent that this increase in denials reflects the effect of administrative actions defining covered services, it will cause a non-recurring distorting effect on the increase due to net residual factors. The gross residual factor is adjusted for the impact of changes in denials as shown in the sixth column of table A3. This column is used in the projection to indicate the amount of cost increases to be expected in the future from residual causes. The seventh column shows the net increase due to residual factors.

The last column of table A3 shows the total increase in charges per enrollee for physician services. It includes the effects of all the items discussed above.

Projected increases in total recognized charges per enrollee are shown in table A4. Column 1 of table A4 shows the projected average increase in customary charges in each of the 12 month periods ending June 30, 1980 through 1984. As described above, each of these increases depends on the increases in fees actually submitted during the preceding calendar year. Thus, this column represents actual and projected average increases in physicians' fees for calendar years 1978 through 1982, respectively. In principle, further adjustments should be made for the year-to-year variations created by the process of selecting the 75th percentile of customary charges for each service in each locality to establish prevailing charges and for the fact that, of necessity, some fees are not screened in exactly the manner described (e.g., when new categories of services arise for which there is no historical data base). The impact on year-to-year increases in reasonable charges of these two factors is treated as negligible (although, of course, they may have some effect on the absolute level of fees). The effects of the economic index on the average charge increase is shown in column 2. The projected net increase in reasonable charges is shown in column 3; this compares with the corresponding historical data shown in column 4 of table A3.

The projection of residual factors assumes no further changes in the proportion of claims denied consistent with the very small changes observed in the last few years (see table A3).

TABLE A4.—COMPONENTS OF INCREASES IN TOTAL RECOGNIZED CHARGES PER ENROLLEE FOR PHYSICIAN SERVICES: PROJECTED

(in percent)

Year ending June 30,	Increase before effect of economic index	Reduction due to economic index	Net increase in reasonable charges	Gross residual factors	Effects of denials	Net residual factors	Total increase in recognized charges per enrollee
Alternative A:							
Aged:							
1980	8.4	0.2	8.6	6.0	0.0	6.0	14.6
1981	9.9	0.1	10.0	7.7	0.0	7.7	17.7
1982	11.7	-1.4	10.3	3.5	0.0	3.5	13.8
1983	12.0	-1.8	10.2	7.2	0.0	7.2	17.4
1984	10.2	-1.8	8.4	4.3	0.0	4.3	12.7
Disabled (excluding ESRD):							
1980	8.4	0.2	8.6	9.8	0.0	9.8	18.4
1981	9.9	0.1	10.0	11.0	0.0	11.0	21.0
1982	11.7	-1.4	10.3	6.7	0.0	6.7	17.0
1983	12.0	-1.8	10.2	10.6	0.0	10.6	20.8
1984	10.2	-1.8	8.4	7.6	0.0	7.6	16.0
Alternative B:							
Aged:							
1980	8.4	0.2	8.6	6.0	0.0	6.0	14.6
1981	9.9	0.1	10.0	7.7	0.0	7.7	17.7
1982	11.7	-1.4	10.3	3.5	0.0	3.5	13.8
1983	12.0	-1.7	10.3	7.2	0.0	7.2	17.5
1984	10.2	-1.9	9.3	4.4	0.0	4.4	13.7
Disabled (excluding ESRD):							
1980	8.4	0.2	8.6	9.8	0.0	9.8	18.4
1981	9.9	0.1	10.0	11.0	0.0	11.0	21.0
1982	11.7	-1.4	10.3	6.7	0.0	6.7	17.0
1983	12.0	-1.7	10.3	10.6	0.0	10.6	20.9
1984	11.2	-1.9	9.3	7.7	0.0	7.7	17.0

(2) Institutional and Other Services

The historical and projected increases in charges or costs per enrollee for institutional and other services are shown in table A5. The year-to-year changes in some services have been quite erratic. At best, these series provide only a rough indication of future trends in costs.

**TABLE A5.—INCREASES IN RECOGNIZED CHARGES AND COSTS PER ENROLLEE
FOR INSTITUTIONAL AND OTHER SERVICES**

(In percent)

Year ending June 30,	Inpatient radiology and pathology	Outpatient hospital	Home health agency	Group practice Prepayment plan	Independent lab
Aged:					
Historical:					
1968		57.1	74.6	40.6	39.0
1969	-13.1 ¹	73.7	27.0	12.8	12.3
1970	8.7	39.3	3.3	-2.8	18.7
1971	1.0	26.2	-16.8	-7.5	25.0
1972	-6.1	12.1	-5.3	16.3	27.4
1973	3.2	10.9	20.9	14.0	21.5
1974	6.4	20.1	-15.9	22.2	27.2
1975	16.9	32.4	83.8	27.7	32.1
1976	24.6	34.4	32.5	23.9	19.8
1977	12.3	32.2	23.1	12.0	19.6
1978	21.9	14.6	2.5	-8.0	18.1
1979	11.0	20.0	-3.2	18.2	11.5
Projected:					
1980	14.1	18.8	24.0	52.2	1.8
1981	15.0	25.0	17.2	20.0	15.0
1982	6.0	15.8	-98.0	15.0	13.3
1983	10.5	15.0	15.0	15.0	15.0
1984	15.1	15.0	10.0	10.0	15.0
Disabled (excluding ESRD):					
Historical:					
1975	11.4	19.4	-0.7	16.6	81.6
1976	18.9	22.2	39.6	14.2	33.5
1977	29.3	64.1	-8.8	3.3	32.2
1978	9.8	15.3	14.0	-13.3	29.7
1979	21.1	9.5	-8.6	14.5	22.9
Projected:					
1980	29.8	20.4	16.6	51.4	9.5
1981	20.0	25.0	9.0	20.0	15.0
1982	6.6	15.8	-100.0	15.0	13.3
1983	12.0	15.0	0.0	15.0	15.0
1984	14.0	15.0	0.0	10.0	15.0

¹Percentage change over prior year annualized value.

d. Projected Charges and Costs

Table A6 shows projections of per enrollee incurred charges and costs based on the assumptions in tables A4 and A5. Table A7 shows the total reimbursement amounts per enrollee that result from subtracting the average amounts of copayment per enrollee from the total covered charges in table A6. The aggregate reimbursement amounts shown are derived by multiplying average enrollment by average reimbursement per enrollee.

**TABLE A6.—INCURRED REASONABLE CHARGES OR COSTS PER ENROLLEE:
PROJECTED**

(In percent)

Year ending June 30,	All Services	Physician	Inpatient radiology and pathology	Outpatient hospital	Home health agency	Group practice Prepayment plan	Independent lab
Alternative A:							
Aged:							
1980	\$465.28	\$353.95	\$18.79	\$67.99	\$9.32	\$10.49	\$4.74
1981	552.16	416.60	21.61	84.99	10.92	12.59	5.45
1982	616.27	474.07	22.90	98.43	.22	14.48	6.17
1983	718.64	556.14	25.31	113.19	.25	16.65	7.10
1984	813.00	626.92	29.14	130.17	.28	18.32	8.17
Disabled (excluding ESRD):							
1980	485.73	366.19	22.31	79.58	6.68	6.10	4.87
1981	589.53	443.09	26.77	99.47	7.28	7.32	5.60
1982	676.97	518.47	28.54	115.20	.00	8.42	6.34
1983	807.34	625.92	31.97	132.48	.00	9.68	7.29
1984	933.71	725.88	36.45	152.35	.00	10.65	8.38
Alternative B:							
Aged:							
1980	465.28	353.95	18.79	67.99	9.32	10.49	4.74
1981	552.16	416.60	21.61	84.99	10.92	12.59	5.45
1982	616.27	474.07	22.90	98.43	.22	14.48	6.17
1983	719.15	556.65	25.31	113.19	.25	16.65	7.10
1984	818.78	632.70	29.14	130.17	.28	18.32	8.17
Disabled (excluding ESRD):							
1980	485.73	366.19	22.31	79.58	6.68	6.10	4.87
1981	589.53	443.09	26.77	99.47	7.28	7.32	5.60
1982	676.97	518.47	28.54	115.20	.00	8.42	6.34
1983	807.91	626.49	31.97	132.48	.00	9.68	7.29
1984	940.40	732.57	36.45	152.35	.00	10.65	8.38

TABLE A7.—INCURRED REIMBURSEMENT AMOUNTS: PROJECTED

Year ending June 30,	Average enrollment (millions)	Reimbursement amounts	
		Per enrollee	Aggregate (millions)
Alternative A:			
Aged:			
1980	24.287	\$342.75	8,324
1981	24.796	412.52	10,229
1982	25.293	461.56	11,674
1983	25.826	543.92	14,047
1984	26.432	619.38	16,371
Disabled (excluding ESRD):			
1980	2.637	362.12	955
1981	2.706	445.49	1,205
1982	2.799	513.92	1,438
1983	2.880	618.88	1,782
1984	2.950	720.03	2,124
Alternative B:			
Aged:			
1980	24.287	342.75	8,324
1981	24.796	412.52	10,229
1982	25.293	461.56	11,674
1983	25.826	544.34	14,058
1984	26.432	624.00	16,494
Disabled (excluding ESRD):			
1980	2.637	362.12	955
1981	2.706	445.49	1,205
1982	2.799	513.92	1,438
1983	2.880	619.33	1,784
1984	2.950	725.60	2,141

2. Estimates for Persons Suffering from ESRD

Certain persons suffering from end stage renal disease (ESRD) have been eligible to enroll for Part B coverage since July 1973 (under Section 299I of P.L. 92-603). For analytical purposes those enrollees suffering from ESRD who are also eligible as disability insurance beneficiaries are included in this section because their per enrollee costs are both higher and different in nature from those of most other disabled persons.

The estimates assume that charges for Part B ESRD services under Medicare will increase at an average of 8.0 percent per year under Alternative A and 8.6 percent per year under Alternative B over the projection period (July 1, 1979 through June 30, 1984). The estimates also assume a continued rapid increase in enrollment. The historical and projected enrollment and costs are shown in table A8.

TABLE A8.—INCURRED REIMBURSEMENT FOR END-STAGE RENAL DISEASE

Year ending June 30,	Disabled ESRD and ESRD only		ESRD only	
	Average enrollment (thousands)	Reimbursement amounts		Reimbursement amounts
		Per enrollee	Aggregate (millions)	Aggregate (millions)
Alternative A:				
1974	14	\$10,071	\$141	\$98
1975	21	10,857	228	155
1976	27	11,852	320	209
1977	31	13,516	419	267
1978	36	14,611	526	330
1979	41	15,756	646	399
1980	48	16,229	779	474
1981	53	17,377	921	554
1982	57	18,614	1,061	631
1983	61	19,607	1,196	705
1984	63	21,016	1,324	773
Alternative B:				
1974	14	10,071	141	98
1975	21	10,857	228	155
1976	27	11,852	320	209
1977	31	13,516	419	267
1978	36	14,611	526	330
1979	41	15,756	646	399
1980	48	16,229	779	474
1981	53	17,377	921	554
1982	57	18,667	1,064	633
1983	61	19,885	1,213	715
1984	63	21,651	1,364	796

3. Summary of Aggregate Reimbursement Amounts on a Cash Basis

Table A9 shows aggregate historical and projected reimbursement amounts on a cash basis, by type of beneficiary. The difference between reimbursement amounts on a cash basis and incurred reimbursement amounts results from the lag between the time of service and the time of payment.

TABLE A9.—AGGREGATE REIMBURSEMENT AMOUNTS ON A CASH BASIS

(In millions)

Fiscal Year	Aged	Disabled (excluding ESRD)	Disabled ESRD and ESRD only	Total
Historical:				
1967	\$664			\$664
1968	1,390			1,390
1969	1,645			1,645
1970	1,979			1,979
1971	2,035			2,035
1972	2,255			2,255
1973	2,391			2,391
1974	2,652	\$132	\$90	2,874
1975	3,341	257	167	3,765
1976	4,074	339	259	4,672
Interim ¹	1,083	106	80	1,269
1977	4,992	494	381	5,867
1978	5,776	606	470	6,852
1979	6,903	762	594	8,259
1980	8,441	970	733	10,144
Projected:				
Alternative A:				
1981	10,219	1,213	868	12,300
1982	11,902	1,465	1,005	14,372
1983	14,076	1,788	1,140	17,004
Alternative B:				
1981	10,219	1,213	868	12,300
1982	11,904	1,466	1,008	14,378
1983	14,106	1,793	1,156	17,055

¹Interim Period is the period from July 1, 1976 to September 30, 1976 and is the transitional period between fiscal years beginning July 1 and fiscal years beginning October 1.

4. Administrative Expenses

The ratio of administrative expenses to benefit payments has been approximately 7 percent in recent years and is projected to decline slowly in future years. Projections of administrative costs are based on estimates of workloads and approved budgets for carriers, intermediaries and Federal administration agencies.

APPENDIX B.

Statement of Actuarial Assumptions and Bases Employed in Determining the Monthly Actuarial Rates and the Standard Monthly Premium Rate for the Supplementary Medical Insurance Program Beginning July 1981 ²

1. Actuarial Status of the Supplementary Medical Insurance Trust Fund

The law requires that the SMI program be financed on an incurred basis. That is, program income during the 12-month period for which the actuarial rates are effective must be sufficient to pay for services furnished during that period (including associated administrative costs) even though payment for some of these services will not be made until after the close of the period. The portion of income required to cover benefits not paid until after the close of the 12-month period is added to the trust fund until needed. Thus, the assets in the trust fund at any time should be no less than benefit and administrative costs incurred but not yet paid.

Because the rates are established prospectively, they are subject to projection error. As a result, the income to the program may not equal incurred costs. Therefore, trust fund assets should be maintained at a level that is adequate to cover a moderate degree of projection error in addition to the amount of incurred but unpaid expenses. Table 1 summarizes the estimated actuarial status of the trust fund as of June 30 for each of the years 1979-81.

**TABLE 1.—ESTIMATED ACTUARIAL STATUS OF THE SMI TRUST FUND
12-MONTH PERIODS ENDING JUNE 30 OF 1979-1981**

(In millions of dollars)

12-Month Period Ending June 30	Assets	Liabilities	Assets less liabilities
1979	\$4,883	\$2,810	\$2,073
1980	4,657	3,385	1,272
1981	3,909	3,927	-18

2. MONTHLY ACTUARIAL RATE FOR ENROLLEES AGE 65 AND OLDER

The monthly actuarial rate is one-half the monthly projected cost of benefits and administrative expenses for each enrollee age 65 and older, adjusted to allow for interest earnings on assets in the trust fund and a contingency margin. The contingency margin is an amount appropriate

² This statement appeared in the *Federal Register* of December 24, 1980. Projections shown in the statement differ significantly from the projection shown in the rest of the report because of minor changes in assumptions and because of modification of the SMI program as authorized by P.L. 96-499 since the rates were promulgated.

to provide for a moderate degree of projection error and to amortize unfunded liabilities.

The monthly actuarial rate for enrollees age 65 and older for the year ending June 30, 1982, was determined by projecting per-enrollee cost for the 12-month period ending June 30, 1979, by type of service. The projected costs for the years ending June 30 of 1979-1982 are shown in Table 2. The values for the 12-month period ending June 30, 1979, were established from program data. Subsequent years were projected using a combination of program data and data from external sources. The projection factors used are shown in Table 3.

TABLE 2.—DERIVATION OF MONTHLY ACTUARIAL RATE FOR ENROLLEES AGE 65 AND OVER, YEARS ENDING JUNE 30 OF 1979-1982

	1979	1980	1981	1982
Covered services (at level recognized):				
Physicians' reasonable charges	\$12.87	\$14.75	\$17.36	\$20.35
Radiology and pathology	.69	.78	.90	1.04
Outpatient hospital and other institutions	2.38	2.83	3.54	4.07
Home health agencies	.31	.39	.47	.54
Group practice prepayment plans	.29	.44	.52	.60
Independent lab	.19	.20	.23	.26
Total services	16.73	19.39	23.02	26.86
Cost-sharing:				
Deductible	-1.79	-1.82	-1.85	-1.88
Coinsurance	-2.80	-3.29	-3.97	-4.69
Total benefits	12.14	14.28	17.20	20.29
Administrative expenses	.87	.87	.91	.98
Incurred expenditures	13.01	15.15	18.11	21.27
Value of Interest on fund	-.33	-.36	-.26	-.33
Contingency margin for projection error and to amortize liabilities	.72	-1.39	-1.55	1.66
Promulgated monthly rate	\$13.40	\$13.40	\$16.30	\$22.60

TABLE 3.—PROJECTION FACTORS¹
YEARS ENDING JUNE 30 OF 1980-1982

(In percent)

Year ending June 30,	Physicians' services		Radiology and pathology	Outpatient hospital services	Home health agency services	Group practice prepayment plans	Independent lab services
	Fees ²	Utilization ³					
Aged:							
1980	8.6	5.5	14.1	18.8	24.0	52.2	1.8
1981	10.0	7.0	15.0	25.0	20.0	20.0	15.0
1982	10.6	6.0	15.0	15.0	15.0	15.0	15.0
Disabled:							
1980	8.6	9.0	29.8	20.4	16.6	51.4	9.5
1981	10.1	10.1	20.0	25.0	15.0	20.0	15.0
1982	10.6	9.0	15.0	15.0	15.0	15.0	15.0

¹All values are per enrollee. Also, some values for 1980 and/or 1981 differ significantly from those contained in last year's promulgation notice due to an additional year's data which support the current values.

²As recognized for payment under the program.

³Increase in the number of services received per enrollee and greater relative use of more expensive services.

The projected monthly rate required to pay for one-half of the total of benefits and administrative costs for enrollees age 65 and over for the 12-month period ending June 30, 1982, is \$21.27. The monthly actuarial rate of \$22.60 provides an adjustment for interest earnings and \$1.66 for a contingency margin. This margin partially amortizes a moderately large unfunded liability for the aged.

3. MONTHLY ACTUARIAL RATE FOR DISABLED ENROLLEES

Disabled enrollees are those persons enrolled in SMI because of entitlement to disability benefits for not less than 24 months or because of entitlement to Medicare under the end-stage renal disease program. Projected monthly costs for disabled enrollees (other than those suffering from end-stage renal disease) are prepared in a fashion exactly parallel to projections for the aged, using appropriate actuarial assumptions (see Table 3). Costs for the end-stage renal disease program are projected using a computer model because of the complex demographic problems involved. The combined results for all disabled enrollees are shown in Table 4.

TABLE 4.—DERIVATION OF MONTHLY ACTUARIAL RATE FOR DISABLED ENROLLEES, YEARS ENDING JUNE 30 OF 1979-1982

	1979	1980	1981	1982
Covered services (at level recognized):				
Physicians' reasonable charges	\$15.41	\$18.17	\$21.76	\$25.86
Radiology and pathology	.72	.93	1.12	1.28
Outpatient hospital and other institutions	12.86	15.11	17.67	19.76
Home health agencies	.24	.28	.32	.37
Group practice prepayment plans	.17	.25	.31	.35
Independent lab	.27	.31	.35	.40
Total services	29.67	35.05	41.53	48.02
Cost-sharing:				
Deductible	-1.66	-1.69	-1.72	-1.75
Coinsurance	-5.42	-6.43	-7.68	-8.93
Total benefits	22.59	26.93	32.13	37.34
Administrative expenses	1.63	1.63	1.69	1.80
Incurred expenditures	24.22	28.56	33.82	39.14
Value of Interest on fund	-2.79	-3.12	-2.70	-2.64
Contingency margin for projection error and to amortize liabilities	3.57	-.44	-5.62	.10
Monthly actuarial rate	\$25.00	\$25.00	\$25.50	\$36.60

The projected monthly rate required to pay for one-half of the total of benefits and administrative costs for disabled enrollees for the year ending June 30, 1982 is \$39.14. The monthly rate of \$36.60 provides an adjustment for interest earnings and \$.10 for a contingency margin. This margin is small since there is already a more than moderate excess of assets over liabilities for the disabled.

4. SENSITIVITY TESTING

Several factors contribute to uncertainty about future trends in medical care costs. In view of this, it seems appropriate to test the adequacy of the rates promulgated here using alternative assumptions. The most unpredictable factors that contribute significantly to future costs are outpatient hospital costs, physician utilization (measured indirectly and reflecting the use of more visits per enrollee, the use of more expensive services, and other factors not explained by simple price per service increases), and increases in physician fees as constrained by the program's reasonable charge screens and economic index. Two alternative sets of assumptions and the results of those assumptions are shown in Table 5. All assumptions not shown in Table 5 are the same as in Table 3.

Table 5.—PROJECTION FACTORS AND THE ACTUARIAL STATUS OF THE SMI TRUST FUND UNDER ALTERNATIVE SETS OF ASSUMPTIONS YEARS ENDING JUNE 30 OF 1981-1982

	This Projection		Low Assumption		High Assumption	
	1981	1982	1981	1982	1981	1982
Projection factors (in percent): ¹						
Physician services - fees ²						
Aged	10.0	10.6	9.5	9.6	10.5	11.6
Disabled	10.0	10.6	9.5	9.6	10.5	11.6
Physician services - Residual ³						
Aged	7.0	7.6	5.0	4.0	9.0	8.0
Disabled	10.0	9.0	8.0	7.0	12.0	11.0
Outpatient hospital services						
Aged	25.0	15.0	15.0	5.0	35.0	25.0
Disabled	25.0	15.0	15.0	5.0	35.0	25.0
Home Health Agency services per enrollee						
Aged	20.0	15.0	10.0	5.0	30.0	25.0
Disabled	15.0	15.0	5.0	5.0	25.0	25.0
Actuarial status (in millions):						
Assets	\$3,909	\$5,607	\$4,222	\$6,809	\$3,599	\$4,359
Liabilities	3,927	4,585	3,834	4,345	4,024	4,843
Assets less liabilities	-18	1,022	388	2,464	-425	-484
Ratio of assets less liabilities to expenditures (In percent) ⁴	-.1	5.5	2.6	14.5	-2.6	-2.3

¹The values for 1981 differ significantly from those contained in last year's notice due to an additional year's data which support the current values.

²As recognized for payment under the program.

³Increase in the number of services received per enrollee and greater relative use of more expensive services.

⁴Ratio of assets less liabilities at the end of the year to the total Incurred expenditures during the following year, expressed as a percent.

Table 5 indicates that, under the assumptions used in preparing this report, the promulgated monthly rates will result in an excess of assets over liabilities of \$1,022 million by the end of June 1982. This amounts to 5.5 percent of the estimated total incurred expenditures for the following year. Assumptions which are somewhat more pessimistic, and therefore which indicate the degree that assets can accommodate projection errors, produce a deficit of \$484 million by the end of June 1982, which amounts to a deficit of 2.3 percent of the estimated total incurred expenditures for the following year. Under fairly optimistic assumptions, the promulgated monthly rates will result in an excess of \$2,464 million, which amounts to 14.5 percent of the estimated total incurred expenditures for the following year.

5. PREMIUM RATE

The law provides that the standard monthly premium rate, promulgated to apply for both aged and disabled enrollees, shall be the lesser of:

1. The actuarial rate for enrollees age 65 and older; or

2. The current standard monthly premium, increased by the same percentage that the level of old-age, survivors, and disability insurance (OASDI) benefits has been increased since the May preceding the promulgation (and rounded to the nearer multiple of ten cents).

The standard monthly premium rate for the 12-month period ending with June 30, 1981 is \$9.60. The OASDI benefit table increased 14.3 percent in June 1980. The \$9.60 rate, increased by 14.3 percent and rounded to the nearer ten cent multiple, is \$11.00. Since this is less than the aged actuarial rate, the standard premium rate is \$11.00 for the 12 months ending with June 1982.

APPENDIX C.

STATEMENT OF ACTUARIAL OPINION

It is my opinion that (1) the methodology used herein in evaluating the actuarial status of the Federal Supplementary Medical Insurance Trust Fund is generally accepted within the actuarial profession, and (2) the assumptions used and the resulting cost estimates are in the aggregate reasonable for the purpose for which they were intended, taking into account the experience and expectations of the program.

Roland E. King
Acting Director, Office of Financial and
Actuarial Analysis Health Care Financing
Administration