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1979 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 1979 ANNUAL REPORT OF THE BOARD, PURSUANT TO SECTION 1841(b) OF THE SOCIAL SECURITY ACT, AS AMENDED

LETTER OF TRANSMITTAL

BOARD OF TRUSTEES OF THE
FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND

Washington, D.C, April 13, 1979.

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

SIR: We have the honor to transmit to you the 1979 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund (the 14th such report), in compliance with the provisions of Section 1841(b) of the Social Security Act.

Respectfully,

W. MICHAEL BLUMENTHAL,
Secretary of the Treasury,
and Managing Trustee of the Trust Fund.

RAY MARSHALL,
Secretary of Labor.

JOSEPH A. CALIFANO, JR.,
Secretary of Health, Education, and Welfare.

LEONARD D. SCHAEFFER,
Administrator of the Health Care
Financing Administration, and Secretary, Board of Trustees

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1979 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, Education, and Welfare. 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 1979 annual report, the fourteenth such report.

ADVISORY COUNCIL ON SOCIAL SECURITY

The Secretary of Health, Education, and Welfare on February 26, 1978, announced the appointment of an Advisory council on Social Security under the provisions of section 706 of the Social Security Act. The Council consists of a Chairman and 12 members representing organizations of employers and of employees, self-employed persons, and the public.

Under the law, the Social Security Advisory Council is charged with making a comprehensive study of the status of the social security cash benefit and Medicare programs. This study is to include an examination of the financial status of the trust funds in relation to the long-term commitments of the programs, benefit levels, the scope of coverage, and other aspects of the programs, including their impact on public assistance programs under the Social Security Act.

The Council is required to submit its final reports to the Secretary of Health, Education, and Welfare no later than October 1, 1979. After the Council's reports are transmitted by the Secretary to the Congress and to the Board of Trustees of each of the trust funds, the Council will cease to exist. The Council's report and recommendations with respect to the supplementary medical insurance program will be included in the 1980 annual report of the Board of Trustees.

HIGHLIGHTS

(a) Disbursements of the supplementary medical insurance trust fund increased 16 percent in fiscal year 1978 over 1977. Most of this increase resulted from higher physician fees recognized by the program and the use of more physician services by program enrollees. Other major factors in the increased outlays include greater use of outpatient hospital services and home health services and increased enrollment.

(b) Income to the trust fund increased 23 percent in fiscal year 1978 over 1977. This resulted from increased adequate actuarial rates which

determine the general revenue contribution and from increased enrollment in the program.

(c) The trust fund increased $1,689 million to $3,968 million during 1978. This resulted from increased income to the program and cost increases below the level anticipated.

(d) In December of 1978, the Secretary of Health, Education and Welfare promulgated a standard monthly premium rate of $8.70 and adequate actuarial rates of $13.40 for the aged enrollees and $25.00 for the disabled enrollees for the 12-month period ending June 30, 1980.

(e) An average of 23.3 million persons aged 65 and over were enrolled in the program in fiscal year 1978. This is about 95 percent of the aged population. An additional 2.5 million disabled beneficiaries were enrolled in the same period.

SOCIAL SECURITY AMENDMENTS SINCE THE 1978 TRUSTEES REPORT

During 1978 the following public law affecting the operation of the Federal Supplementary Medical Insurance Trust Fund was enacted: Public Law 95-292, enacted June 13, 1978, provides incentives for the end-stage renal disease (ESRD) patient to self-dialyze at home or in a self-care dialysis unit of a facility; encourages early renal transplantation; and provides incentive reimbursement methods to assure more cost-effective delivery of services to patients who dialyze in institutions and at home. The amendments a]so provide for experiments and studies on ways to reduce ESRD program costs and for regular reports to the Congress on the cost and operation of the ESRD program. Thus, the law is designed to encourage ERSD beneficiaries to use less costly forms of treatment without jeopardizing their health. Other provisions, unrelated to ESRD, include replacing the Commissioner of Social Security with the Administrator of the Health Care Financing Administration as Secretary of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund and extending to October 1, 1978, the interim provisions of Public Law 93-233 concerning teaching physician reimbursement.

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 enro11 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, Education, and Welfare. The standard monthly premium rates in effect from the beginning of the program .July 1966 through .June 1979, and the rate promulgated for July 1979 through June 1980, are shown in table 1. Adequate actuarial rates in effect from July 1973 through June 1979, and the rates promulgated for July 1979 through June 1980, are also shown.

TABLE 1.—STANDARD MONTHLY PREMIUM RATES, AND ADEQUATE ACTUARIAL RATES

	Standard monthly premium rate	Adequate 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

[1]In accordance with limitations on the costs of health care imposed under phase III of the Economic Stabilization program, the standard premium rate tor 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, Education, and Welfare 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, Education, and Welfare 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, Education, and Welfare 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. The costs of such experiments and demonstration projects are paid out of the hospital insurance and supplementary medical insurance trust funds.

Congress has authorized expenditures from the trust funds for constructions, rental, and lease or purchase contract 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 are 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 statements of the operations 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 federal1y 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 1978

A statement of the income and disbursements of the Federal Supplementary Medical Insurance Trust Fund in fiscal year 1978 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 1977 are also shown in the table.

The total assets of the trust fund amounted to $2,279 million on September 30, 1977. During fiscal year 1978, total receipts amounted to $9,045 million, and total disbursements were $7,356 million. Total assets thus increased $1,689 million during the year to a total of $3,968 million on September 30, 1978.

Of the total receipts, $2.168 million represented premium payments by (or on behalf of) participants aged 65 and over, and $245 million represented premium payments by (or on behalf of) disabled participants under age 65. Total premium payments amounted to $2,431million, an increase of 10.9 percent over the amount of $2,193 million for the preceding year. This increase in premiums from participants resulted primarily from (1) the expected growth in the number of persons enrolled in the supplementary medical insurance program, and (2) the increase from $7.20 to $7.70 per month in the standard premium rate that became effective on July 1, 1977, and the increase from $7.70 to $8.20 per month in the standard premium rate that became effective on July 1, 1978.

Contributions received from the general fund of the Treasury amounted to $6,386 million. This amount consisted of $4,965 million representing contributions relating to premiums paid by participants aged 65 and over, $1,398 million representing contributions relating to the premiums paid by disabled participants under age 65, and $23 million in interest on delayed transfers of Government contributions.

The remaining $229 million of receipts consisted almost entirely of interest on the investments of the trust fund.

Of the $7,356 million in total disbursements, $6,845 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 1978, therefore, amounted to $6,851 million, an increase of 16.8 percent over the corresponding amount of $5,865 million paid in the preceding year.

Reference has been made in an earlier section to provisions which authorize payment from the trust fund for costs of experiments and demonstration projects in providing health care services. In fiscal year 1978, payments for such costs amounted to about $2 million.

TABLE 2.—STATEMENT OF OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND DURING FISCAL YEARS 1977 AND 1978

[In thousands]

	Fiscal year 1978	Fiscal year 1978
Total assets of the trust fund, beginning of period	$1,238,508	$2,279,426
Receipts:		
Premiums from participants:		
Participants aged 65 and over	1,986,937	2,186,489
Disabled participants under age 65	205,966	244,644
Total premiums	2,192,903	2,431,133
Transfers from general fund of the Treasury:		
Government contributions:		
For premiums received from participants aged 65 and over	4,025,935	4,964,795
For premiums received from disabled participants under age 65	1,009,469	1,397,708
Total Government contributions	5,035,405	6,362,503
Interest on delayed transfers of Government contributions	17,539	23,000
Total transfers from general fund of the Treasury	5,052,944	6,385,503
Interest		
Interest on Investments	132,259	229,065
Interest on amounts of interfund transfers due to adjustment in allocation of administrative expenses and construction costs[1]	4,451	−217
Total interest	136,710	228,848
Total receipts	7,382,557	9,045,484
Disbursements:		
Benefit payments		
Paid directly from the trust fund for costs of health services	5,858,559	6,844,630
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	5,864,559	6,850,630
Costs of experiments and demonstration projects[2]	2,363	1,622
Administrative expenses:		
Department of Health, Education and Welfare[3]	515,076	496,724
Treasury Department	115	33
Railroad Retirement Board	960	743
Civil Service Commission	103	76
Construction of facilities	184	2,782
Interfund transfers due to adjustment in allocation[4]	−41,920	3,850
Construction costs[4]	226	32
Gross administrative expenses	474,744	504,240
Less receipts from sale of surplus supplies, materials, etc.	27	6
Net administrative expenses	474,717	504,234
Total disbursements	6,341,639	7,356,486
Net addition to the trust fund	1,040,918	1,688,999
Total assets of the trust fund, end of year	2,279,426	3,968,425

[1]A 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.

[2]For explanation, see text.

[3]Includes administrative expenses of the carriers and intermediaries.

[4]A 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 remaining $504 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. Periodica11y, 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 amount of participants' premiums, Government contributions, and benefit payments in fiscal year 1978 is compared with the estimates for fiscal year 1978 which appeared in the 1977 and 1978 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 1978

[Dollar amounts in millions]

Item	Actual amount	Comparison of actual experience with estimates for fiscal year 1978 published in -			
		1978 report		1977 report	
		Estimated amount	Actual as percentage of estimate	Estimated amount	Actual as percentage of estimate
Premiums from Participants	$2,431	$2,408	101	$2,374	102
Government Contributions	6,386	6,383	100	6,383	100
Benefit Payments	6,852	7,075	97	7,325	94

The assets of the trust fund at the end of fiscal year 1977 totaled $2,279 million, consisting of $2,232 million in the form of obligations of the U.S. Government and an undisbursed balance of $47 million. The net increase in the par value of the investments owned by the fund during fiscal year 1977 amounted to $988 million. New securities at a total par value of $8.387 million were acquired during the fiscal year through the investment of receipts. The par value of securities redeemed during the year was $7,399 million. Included in these amounts is $7.355 million in certificates of indebtedness that were acquired, and $7,383 million in certificates of indebtedness that were redeemed, within the fiscal year. The assets of the trust fund at the end of fiscal year 1978 totaled $3,968 million, consisting of $4,021 million in the form of obligations of the U.S. Government and, as an offset, an extension of credit of $52 million against securities to be redeemed. This was covered by the redemption of securities on October 1, 1978. Table 4 shows a comparison of the total assets of the fund and their distribution at the end of fiscal year 1977 and at the end of fiscal year 1978. 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 1977 AND 1978[1]

	Sept. 30, 1978	Sept. 30, 1978
Investments in public-debt obligations sold only to this fund (special Issues):		
Certificates of Indebtedness:		
7⅛ percent, 1978	$41,235,000.00	
8¼ percent, 1980		$32,245,000.00
8⅜ percent, 1980		435,330,000.00
Notes:		
6⅝ percent, 1980	277,822,000.00	199,029,000.00
Bonds:		
7⅛ percent, 1978	121,411,000.00	
7⅛ percent, 1979	137,817,000.00	
7⅛ percent, 1981	56,246,000.00	56,246,000.00
7⅛ percent, 1982	56,245,000.00	56,245,000.00
7⅛ percent, 1983	56,245,000.00	56,245,000.00
7⅛ percent, 1984	56,245,000.00	56,245,000.00
7⅛ percent, 1985	56,245,000.00	56,245,000.00
7⅛ percent, 1986	56,245,000.00	56,245,000.00
7⅛ percent, 1987	56,245,000.00	56,245,000.00
7⅛ percent, 1988	56,245,000.00	56,245,000.00
7⅛ percent, 1989	56,245,000.00	56,245,000.00
7⅛ percent, 1990	56,246,000.00	56,246,000.00
7⅛ percent, 1991	56,246,000.00	56,246,000.00
7⅛ percent, 1992	137,816,000.00	137,816,000.00
7⅜ percent, 1981	11,547,000.00	11,547,000.00
7⅜ percent, 1982	11,547,000.00	11,547,000.00
7⅜ percent, 1983	11,546,000.00	11,546,000.00
7⅜ percent, 1984	11,546,000.00	11,546,000.00
7⅜ percent, 1985	11,546,000.00	11,546,000.00
7⅜ percent, 1986	11,547,000.00	11,547,000.00
7⅜ percent, 1987	11,547,000.00	11,547,000.00
7⅜ percent, 1988	11,547,000.00	11,547,000.00
7⅜ percent, 1989	11,547,000.00	11,547,000.00
7⅜ percent, 1990	73,510,000.00	73,510,000.00
7½ percent, 1981	8,060,000.00	8,060,000.00
7½ percent, 1982	8,060,000.00	8,060,000.00
7½ percent, 1983	8,061,000.00	8,061,000.00
7½ percent, 1984	8,061,000.00	8,061,000.00
7½ percent, 1985	8,061,000.00	8,061,000.00
7½ percent, 1986	8,061,000.00	8,061,000.00
7½ percent, 1987	8,061,000.00	8,061,000.00
7½ percent, 1988	8,061,000.00	8,061,000.00
7½ percent, 1989	8,061,000.00	8,061,000.00
7½ percent, 1990	8,060,000.00	8,060,000.00
7½ percent, 1991	81,570,000.00	81,570,000.00
7⅞ percent, 1981	61,964,000.00	61,964,000.00
7⅞ percent, 1982	61,964,000.00	61,964,000.00
7⅞ percent, 1983	61,964,000.00	61,964,000.00
7⅞ percent, 1984	61,964,000.00	61,964,000.00
7⅞ percent, 1985	61,964,000.00	61,964,000.00
7⅞ percent, 1986	61,963,000.00	61,963,000.00
7⅞ percent, 1987	61,963,000.00	61,963,000.00
7⅞ percent, 1988	61,963,000.00	61,963,000.00
7⅞ percent, 1989	61,963,000.00	61,963,000.00
8¼ percent, 1988		54,766,000.00
8¼ percent, 1981		115,977,000.00
8¼ percent, 1982		115,978,000.00
8¼ percent, 1983		115,978,000.00
8¼ percent, 1984		115,978,000.00
8¼ percent, 1985		115,978,000.00
8¼ percent, 1986		115,978,000.00
8¼ percent, 1987		115,978,000.00
8¼ percent, 1988		115,978,000.00
8¼ percent, 1989		115,978,000.00
8¼ percent, 1990		115,978,000.00
8¼ percent, 1991		115,978,000.00
8¼ percent, 1992		115,978,000.00
8¼ percent, 1993		253,794,000.00
Total investments in public-debt obligations	2,232,078,000.00	4,020,692,000.00
Undisbursed balance	47,348,202.11	[2] −52,267,282.28
Total assets	2,279,426,202.11	3,968,424,717.72

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

[2]The negative figure represented an extension of credit which was covered by redemptions of securities on the 1st day of the following month.

The net increase in the par value of the investments held by the fund during fiscal year 1978 amounted to $1,789 million. New securities at a total par value of $10,889 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 $9,100 million. Included in these amounts is $8,915 million in certificates of indebtedness that were acquired, and $8,487 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, 1978 was 7.4 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 1978 was 8¼ percent, payable semiannually.

EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND DURING THE PERIOD OCTOBER 1, 1978 TO DECEMBER 31, 1981

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, 1980. 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 assume that allowable fees for physician services will increase an average of 7.9 percent for the 12-month period ending June 30, 1979 and will increase an average of 7.7 percent for the 12-month period ending June 30, 1980. The costs per enrollee for institutional and other services under Part B are projected to increase 15 percent for the 12-month period ending June 30, 1979 over the previous 12 months and an additional 15 percent for the 12-month period ending June 30, 1980.

Table 5 shows the projected operations of the trust fund on a fiscal year basis through fiscal year 1981. Table 6 shows the corresponding development on a calendar year basis. The trust fund increased substantially in fiscal year 1978 due primarily to the fact that actual expenditures were less than anticipated at the time the financing for this period was established. When the adequate rates for the 12-month period ending June 30, 1979 were promulgated, the projected expenditures were higher than current estimates; therefore, the fund is projected to continue to increase substantially to $4.925 million by the end of fiscal year 1979. The adequate rates for the 12-month period ending June 30, 1980 were maintained at the same level as the preceding 12-month period in order to slow this rate of increase. As a result, the fund is projected to increase somewhat to $5,159 million by the end of fiscal year 1980.

TABLE 5.—ESTIMATED PROGRESS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) FISCAL YEARS 1979-1981 AND ACTUAL DATA FOR 1967-1978

[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	Administrative expenses	Total disbursements	
Historical Data:								
1967	$647	$623	$15	$1,285	$664	[3] $134	$799	$486
1968	698	634	21	1,353	1,390	143	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	17	2,516	2,035	248	2,283	290
1972	1,340	1,365	29	2,734	2,255	288	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	404	4,170	1,424
1976	1,951	2,939	104	4,994	4,671	529	5,200	1,219
Interim[4]	539	878	4	1,421	1,268	133	1,401	1,239
1977[5]	2,193	5,053	137	7,383	5,867	475	6,342	2,279
1978[5]	2,431	6,386	229	9,045	6,852	504	7,356	3,968
Projected:								
1979[5]	2,650	6,748	327	9,725	8,193	575	8,768	4,925
1980[5]	2,916	7,078	393	10,387	9,559	594	10,153	5,159
1981[5]	3,269	8,806	432	12,507	11,139	627	11,766	5,900

[1] The payments shown as being from the general fund of the Treasury Include certain interest-adjustment items.
[2] The financial status of the program depends on both the total net assets and the liabilities of the program (See Table 8).
[3] Administrative expenses shown include those paid in FY 1966 and 1967.
[4] Interim Period is the period from July 1, 1976 to September 30, 1976.
[5] Beginning with fiscal year 1977 the fiscal year is the 12-mo period ending with Sept. 30 of the year indicated.

TABLE 6.— ESTIMATED PROGRESS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) CALENDAR YEARS 1979-1981 AND ACTUAL DATA FOR 1966-1978

[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	$3	$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	183	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	238	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	290	2,614	643
1973	1,550	1,705	57	3,311	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	106	4,673	4,273	462	4,735	1,444
1976	2,060	3,810	106	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
Projected:								
1979	2,708	6,609	358	9,675	8,537	580	9,117	4,958
1980	3,008	7,537	403	10,948	9,967	602	10,569	5,337
1981	3,346	9,150	452	12,948	11,581	639	12,220	6,065

[1] The payments shown as being from the general fund of the Treasury include certain interest-adjustment Items.
[2] The 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 applies 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, Education, and Welfare 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. In the early months of program operations, it appears that some bills containing errors were never resubmitted following correction. 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.

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 1980. On the basis of this financing, the estimated excess of assets over liabilities of $1.568 million at the end of June 1978 is projected to increase to $2,306 million at the end of June 1979 and then to decrease to $1,982 million at the end of June 1980. Financing for the 12-month period ending June 30, 1980 was deliberately set to reduce some of the excess projected for the end of June 1979. The projected $1,982 million excess as of June 30, 1980 amounts to 17 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 7.—ESTIMATED INCOME AND DISBURSEMENTS INCURRED UNDER SUPPLEMENTARY MEDICAL INSURANCE PROGRAM, 12-MONTH PERIODS ENDING JUNE 30, 1967-1981

[In millions]

12-mo period ending June 30—	Premiums from participants	Government contributions	Interest on fund	Benefit payments	Administrative expenses	Net operations in year
Historical:						
1967	$647	$647	$15	$1,121	[1] $190	−$2
1968	698	698	21	1,446	148	−177
1969	903	903	23	1,769	209	−149
1970	936	936	12	1,932	212	−260
1971	1,253	1,253	17	2,091	254	178
1972	1,340	1,340	29	2,286	293	130
1973	1,427	1,426	45	2,503	257	138
1974	1,704	2,031	76	3,162	450	199
1975	1,887	2,395	108	3,914	420	56
1976	1,951	2,972	109	4,816	545	−329
1977	2,156	4,697	157	5,829	504	677
1978	2,358	5,991	247	6,987	504	1,105
Projected:						
1979	2,591	6,599	338	8,209	581	738
1980	2,824	6,619	394	9,549	612	−324

[1] Includes administrative expenses Incurred prior to the beginning of the program.

TABLE 8.—SUMMARY OF ESTIMATED ASSETS AND LIABILITIES OF THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM, ON JUNE 30, 1967-1980

[Dollar amounts in millions]

	Assets			Liabilities				
June 30	Balance in trust fund	Government contributions due and unpaid	Total assets	Benefits incurred but unpaid	Administrative cost thereon	Total liabilities	Excess of assets over liabilities	Ratio[1]
Past experience:								
1967	$486	$24	$510	$457	$56	$513	-$3	0
1968	307	88	395	513	61	574	-179	-0.09
1969	378	7	385	637	75	712	-327	-0.15
1970	57	15	72	590	70	660	-588	-0.25
1971	290	22	312	646	76	722	-410	-0.16
1972	481	-3	478	677	81	758	-280	-0.10
1973	746	-7	739	789	92	881	-142	-0.04
1974	1,272	-5	1,267	1,077	133	1,210	57	0.01
1975	1,424	67	1,491	1,226	149	1,375	116	0.02
1976	1,219	105	1,324	1,371	165	1,536	-212	-0.03
1977	2,170	90	2,260	1,611	186	1,797	463	0.06
1978	3,786	40	3,826	2,041	217	2,258	1,568	0.18
Projected:								
1979	4,915	2	4,917	2,370	241	2,611	2,306	0.23
1980	4,968	3	4,971	2,725	264	2,989	1,982	0.17

[1] Ratio 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 1980 (the period through which financing has been established), reaching a level of 31 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 assets would be approximately equal to liabilities by the end of June 1980. If these high growth rates were to occur, the program would remain just solvent and 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 THE 12-MONTH PERIOD ENDING WITH JUNE OF THE YEAR SHOWN

	Intermediate projection (this report)		Low cost projection		High cost projection	
	1979	1980	1979	1980	1979	1980
Per enrollee increase over prior year:						
Physician fees (percent)	7.9	7.7	6.4	6.2	9.4	9.2
Physician utilization (percent)	3.0	3.0	.5	.5	5.5	5.5
Outpatient hospital and home health agency (percent)	15.0	15.0	5.0	5.0	30.0	30.0
Assets as of June 30 (in millions)	$4,917	$4,971	$5,208	$6,020	$4,579	$3,691
Liabilities as of June 30 (in millions)	2,611	2,989	2,524	2,789	2,716	3,251
Excess of assets over liabilities (in millions)	2,306	1,982	2,684	3,231	1,863	440
Ratio[1]	0.23	0.17	0.29	0.31	0.17	0.03

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

CONCLUSION

The financing of the supplementary medical insurance program has been established through June 1980, by the promulgation of standard monthly premium rates (paid by or on behalf of each enrollee) of $8.20 for the year ending June 1979 and $8.70 for the year ending June 1980 and of adequate actuarial rates which determine the amount to be contributed from general revenue on behalf of each enrollee.

Under the intermediate assumptions used in this report, income to the trust fund is projected to exceed disbursements during both fiscal years 1979 and 1980. The assets in the trust fund, on a cash basis, are projected to increase from $3,968 million at the end of fiscal year 1978 to an estimated $5,159 million at the end of 1980. About 60 percent of this year-end balance, however, is attributable to liabilities for benefits and associated administrative costs which will have been incurred but not yet paid.

Program assets exceeded liabilities by approximately $1,568 million at the end of June 1978. Under the intermediate assumptions, the actuarial status of the trust fund is expected to remain sound, with assets exceeding liabilities by $1,982 million at the end of June 1980 (representing 17 percent of projected incurred expenditures for the

following 12-month period). Even under more pessimistic assumptions as to cost increases, income produced on the basis of financing already established plus assets held in the trust fund will be sufficient for the trust fund to remain solvent through that period of time. Hence, the financing established through June 1980 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 PROGRAM[1]

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, 1977, for this report) and projecting these charges through the estimating period. The per enrollee charges are then converted to reimbursement amounts by subtracting out 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 fiscal intermediaries, 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 reductions 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 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

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[1]Prepared by the Division of Medicare Cost Estimates, Office of Financial and Actuarial Analysis, Health Care Financing Administration

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 Part B are paid by the same fiscal intermediaries that pay for Part A services. The principal institutional services covered under Part B are outpatient hospital care and home health agency services.

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. Data are available for these payments only on a cash basis, and approximations must be made to assign expenses to the period when services were rendered.

(3) Summary of Historical Data

Table Al summarizes the incurred reimbursement amounts per enrollee for the various services for each of the 12 month periods ending June 30, through 1977. 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 Al.

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	$63.16	$59.10	------	$1.40	$0.79	$1.64	$0.23
1968	18.038	80.22	72.57	$1.89	2.40	1.49	1.52	.35
1969	18.833	93.86	79.05	6.57	4.23	1.92	1.69	.40
1970	19.312	100.05	82.82	7.14	5.93	2.00	1.68	.48
1971	19.664	106.34	87.79	7.21	7.56	1.68	1.49	.61
1972	20.043	114.07	94.82	6.77	8.57	1.61	1.52	.78
1973	20.428	122.51	100.96	6.99	9.44	2.23	1.95	.94
1974	20.988	134.57	109.91	7.54	11.35	2.13	2.44	1.20
1975	21.504	158.72	126.24	8.68	15.45	3.99	2.75	1.61
1976	22.089	187.30	144.76	10.90	21.08	5.29	3.28	1.99
1977	22.605	218.37	165.03	12.23	28.49	6.32	3.92	2.38
Disabled (excluding ESRD):								
1974	1.639	119.75	89.88	7.64	13.90	3.63	4.15	0.55
1975	1.818	149.60	116.54	8.41	17.31	3.73	2.58	1.03
1976	2.015	178.61	137.27	9.95	21.46	5.26	3.26	1.41
1977	2.233	214.39	156.42	12.70	36.14	4.54	2.82	1.77

[1] Includes 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	$109.24	$102.22	------	$2.43	$1.36	$2.84	$0.39
1968	18.038	128.84	117.60	$1.89	3.89	2.42	2.47	.57
1969	18.833	145.97	126.24	6.57	6.75	3.07	2.70	.64
1970	19.312	154.13	131.03	7.14	9.38	3.16	2.66	.76
1971	19.664	162.66	137.68	7.21	11.86	2.63	2.33	.95
1972	20.043	172.86	146.77	6.77	13.27	2.49	2.35	1.21
1973	20.428	186.32	157.06	6.99	14.69	3.08	3.03	1.47
1974	20.988	204.53	171.02	7.54	17.66	2.65	3.80	1.86
1975	21.504	235.34	191.72	8.68	23.46	4.85	4.18	2.45
1976	22.089	271.33	215.00	10.90	31.31	6.29	4.87	2.96
1977	22.605	309.82	239.72	12.23	41.38	7.34	5.69	3.46
Disabled (excluding ESRD):								
1974	1.639	181.14	140.00	7.64	21.65	4.52	6.47	0.86
1975	1.818	220.23	175.76	8.41	26.11	4.50	3.89	1.56
1976	2.015	256.95	202.29	9.95	31.62	6.20	4.81	2.08
1977	2.233	301.56	225.04	12.70	52.00	5.22	4.06	2.54

[1]Includes 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.

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.

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 each year due both to deliberate 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 yearto-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 have 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 nonrecurring 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, 1978 through 1982. 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 1976 through 1980, 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 have a substantial 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 A3.—COMPONENTS OF INCREASES IN TOTAL RECOGNIZED CHARGES PER ENROLLEE FOR PHYSICIAN SERVICES: HISTORICAL

[In percent]

	Increase due to price changes				Increase Due to Residual Factors			
		Reduction due to fee screens						
Year ending June 30,	Increase in physician fee component of CPI	Cumulative effect	Yearly changes	Net increase in reasonable charges	Gross residual factors	Effects of denials	Net residual factors	Total increase in recognized charges per enrollee
Aged:								
1967	7.6	−2.6						
1968	5.9	−3.6	−0.6	5.3	11.2	−1.4	9.8	15.1
1969	6.2	−5.0	−1.4	4.8	3.0	−.4	2.6	7.4
1970	6.7	−7.5	−2.8	3.9	3.0	−3.1	−.1	3.8
1971	7.5	−10.1	−3.0	4.5	3.8	−3.2	.6	5.1
1972	5.2	−11.2	−1.2	4.0	2.2	.4	2.6	6.6
1973	2.6	−11.7	−.5	2.1	5.5	−.6	4.9	7.0
1974	5.0	−13.2	−1.6	3.4	6.1	−.6	5.5	8.9
1975	12.8	−16.2	−3.6	9.2	3.2	−.3	2.9	12.1
1976	11.4	−18.6	−2.9	8.5	3.5	.1	3.6	12.1
1977	10.2	−19.5	−1.0	9.2	2.2	.1	2.3	11.5
Disabled (excluding ESRD):								
1974	5.0	−13.2						
1975	12.8	−16.2	−2.6	10.2	15.6	−.3	15.3	25.5
1976	11.4	−18.6	−2.7	8.7	6.3	.1	6.4	15.1
1977	10.2	−19.5	−1.0	9.2	2.0	.1	2.1	11.3

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

[In percent]

	Increase due to price changes			Increase due to residual factors			
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
Aged:							
1978	11.3	−1.8	9.5	4.4	0.0	4.4	13.9
1979	9.3	−1.4	7.9	3.3	0.0	3.3	11.2
1980	8.3	−.6	7.7	3.0	0.0	3.0	10.7
1981	9.0	.2	9.2	3.2	0.0	3.2	12.4
1982	8.6	−.9	7.7	3.2	0.0	3.2	10.9
Disabled (excluding ESRD):							
1978	11.3	−1.8	9.5	4.4	0.0	4.4	13.9
1979	9.3	−1.4	7.9	3.2	0.0	3.2	11.1
1980	8.3	−.6	7.7	3.0	0.0	3.0	10.7
1981	9.0	.2	9.2	3.3	0.0	3.3	12.5
1982	8.6	−.9	7.7	3.3	0.0	3.3	11.0

(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		60.1	77.9	−13.0	46.2
1969	[1] -13.1	73.5	26.9	9.3	12.3
1970	8.7	39.0	2.9	−1.5	18.8
1971	1.0	26.4	−16.8	−12.4	25.0
1972	−6.1	11.9	−5.3	.9	27.4
1973	3.2	10.7	23.7	28.9	21.5
1974	7.9	20.2	−14.0	25.4	26.5
1975	15.1	32.8	83.0	10.0	31.7
1976	25.6	33.5	29.7	16.5	20.8
1977	12.2	32.2	16.7	16.8	16.9
Projected:					
1978	15.0	[2] 12.0	15.0	25.0	15.0
1979	15.0	[2] 15.0	15.0	15.0	15.0
1980	15.0	[2] 15.0	15.0	15.0	15.0
1981	15.0	[2] 15.0	15.0	15.0	15.0
1982	15.0	[2] 15.0	10.0	10.0	15.0
Disabled (excluding ESRD):					
Historical:					
1975	10.1	20.6	−.4	−39.9	81.4
1976	18.3	21.1	37.8	23.7	33.3
1977	27.6	64.5	−15.8	−15.6	22.1
Projected:					
1978	15.0	[2] 12.0	15.0	25.0	15.0
1979	15.0	[2] 15.0	15.0	15.0	15.0
1980	15.0	[2] 15.0	15.0	15.0	15.0
1981	15.0	[2] 15.0	15.0	15.0	15.0
1982	15.0	[2] 15.0	10.0	10.0	15.0

[1] Percentage change over prior year annualized.

[2] Does not include the effect of rural health clinics.

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

Year ending June 30—	All Services	Physician	Inpatient radiology and pathology	Outpatient hospital	Home health agency	Group practice Prepayment plan	Independent lab
Aged:							
1978	$353.36	$272.99	$14.06	$46.78	$8.44	$7.11	$3.98
1979	397.35	303.69	16.17	55.02	9.71	8.18	4.58
1980	444.40	336.31	18.60	63.64	11.17	9.41	5.27
1981	502.37	378.05	21.39	73.20	12.85	10.82	6.06
1982	561.37	419.37	24.60	84.39	14.14	11.90	6.97
Disabled (excluding ESRD):							
1978	343.71	256.28	14.61	58.82	6.00	5.08	2.92
1979	388.00	284.82	16.80	70.28	6.90	5.84	3.36
1980	434.99	315.41	19.32	81.74	7.94	6.72	3.86
1981	492.54	354.87	22.22	94.15	9.13	7.73	4.44
1982	551.19	393.75	25.55	108.24	10.04	8.50	5.11

TABLE A7.—INCURRED REIMBURSEMENT AMOUNTS: PROJECTED

Year ending June 30—	Average enrollment (millions)	Reimbursement amounts	
		Per enrollee	Aggregate (millions)
Aged:			
1978	23.173	$253.10	$5,865
1979	23.754	288.37	6,850
1980	24.365	326.53	7,956
1981	24.947	373.55	9,319
1982	25.517	421.52	10,756
Disabled (excluding ESRD):			
1978	2.420	248.35	601
1979	2.546	283.97	723
1980	2.633	321.69	847
1981	2.698	368.42	994
1982	2.760	415.94	1,148

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 2991 of Public Law 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 7.3 percent per year over the projection period (July 1, 1977 through June 30, 1982). 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)
1974	14	$10,071	$141	$98
1975	21	10,857	228	155
1976	26	12,192	317	207
1977	31	13,355	414	264
1978	36	14,472	521	327
1979	40	15,900	636	393
1980	45	16,578	746	454
1981	50	17,020	851	512
1982	54	17,667	954	567

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	2,650	$134	$90	2,874
1975	3,337	261	167	3,765
1976	4,073	341	257	4,671
Interim[1]	1,084	104	80	1,268
1977	5,001	487	379	5,867
1978	5,789	593	470	6,852
Projected:				
1979	6,876	724	593	8,193
1980	8,008	850	701	9,559
1981	9,336	995	808	11,139

[1]Interim Period is the period from July 1, 1976 to Sept. 30, 1976 and is the transitional period between fiscal years beginning July 1 and fiscal years beginning Oct. 1.

4. Administrative Expenses

The ratio of administrative expenses to benefit payments has been approximately 10 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 ADEQUATE ACTUARIAL RATES AND THE STANDARD MONTHLY PREMIUM RATE FOR THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM BEGINNING JULY 1979[2]

1. Actuarial Status of the Supplementary Medical Insurance Trust Fund

The law requires that the Supplementary Medical Insurance (SMI) program be financed on incurred basis. That is, program income during the 12-month period for which the adequate actuarial rates are effective must be sufficient to pay for services rendered during that period (plus the Government's related 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 adequate 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 which is adequate to cover the impact of 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 1977-79.

TABLE 1.—ESTIMATED ACTUARIAL STATUS OF THE SMI TRUST FUND YEARS ENDING JUNE 30 OF 1978-1980

[In millions of dollars]

Year ending June 30—	Assets	Liabilities	Assets less liabilities
1979	$2,258	$1,763	$495
1980	3,824	2,237	1,587
1981	4,782	2,565	2,217

2. Monthly Adequate Actuarial Rate For Enrollees Age 65 And Older

The monthly adequate 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 the following interest earnings on assets in the trust fund; contingency margin; and amortization of unfunded liabilities.

The monthly adequate actuarial rate for enrollees age 65 and older for the year ending June 30, 1980, was determined by projecting per enrollee cost for the 12-month period ending June 30, 1977, by type of service. The projected costs for the years ending June 30 of 1977-80 are

[2] This statement appeared in the *Federal Register* of Dec. 29, 1978. Projections shown in the statement differ slightly from the projection shown in the rest of the report because of minor changes in assumptions since the rates were promulgated.

shown in Table 2. The values for the 12-month period ending June 30, 1977, 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 PROMULGATED MONTHLY RATE FOR ENROLLEES AGE 65 AND OVER, YEARS ENDING JUNE 30 OF 1977-1980

	1977	1978	1979	1980
Covered services (at level recognized):				
Physicians' reasonable charges	$9.99	$11.37	$12.65	$13.99
Radiology and pathology	.51	.59	.67	.78
Outpatient hospital and other institutions	1.72	1.95	2.28	2.64
Home health agencies	.31	.35	.40	.47
Group practice prepayment plans	.24	.30	.34	.39
Independent lab	.14	.17	.19	.22
Total services	12.91	14.73	16.53	18.49
Cost−sharing:				
Deductible	-1.73	-1.76	-1.78	-1.80
Coinsurance	-2.08	-2.41	-2.73	-3.08
Total benefits	9.10	10.56	12.02	13.61
Administrative expenses	.79	.76	.94	1.02
Incurred expenditures	9.89	11.32	12.96	14.63
Value of Interest on fund	-.09	-.20	-.27	-.29
Margin for contingencies and to amortize liabilities	.90	1.18	.71	-.94
Promulgated monthly rate	10.70	12.30	13.40	13.40

TABLE 3.—PROJECTION FACTORS, YEARS ENDING JUNE 30 OF 1978-1980

[In percent]

	1978	1979	1980
Physicians' services:			
Fees[1]	9.5	7.9	7.5
Utilization[2]	4.0	3.0	3.0
Outpatient hospital services per enrollee[3]	12.0	15.0	15.0
Home health agency services per enrollee[3]	15.0	15.0	15.0
Group practice plan services per enrollee[3]	25.0	15.0	15.0
Other services per enrollee	15.0	15.0	15.0

[1]As recognized for payment under the program.
[2]Increase in the number of services received per enrollee and greater relative use of more expensive services.
[3]The values for 1978 and/or 1979 differ significantly from those contained in last year's promulgation notice due to an additional year's data which support the current values.

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 year ending June 30, 1980, is $14.63. The monthly adequate actuarial rate of $13.40 provides an adjustment for interest earnings and a small margin for contingencies.

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 consecutive 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 the same actuarial assumptions. 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.

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, 1980, is $26.47. The monthly adequate actuarial rate of $25.00 provides an adjustment for interest earnings and a small margin for contingencies.

TABLE 4.—DERIVATION OF PROMULGATED MONTHLY RATE FOR DISABLED ENROLLEES, YEARS ENDING JUNE 30 OF 1977-1980

	1977	1978	1979	1980
Covered services (at level recognized):				
Physicians' reasonable charges	$11.16	$12.78	$14.28	$15.80
Radiology and pathology	.53	.61	.70	.81
Outpatient hospital and other institutions	9.73	11.38	13.18	14.75
Home health agencies	.22	.25	.29	.33
Group practice prepayment plans	.17	.21	.24	.28
Independent lab	.11	.12	.14	.16
Total services	21.92	25.35	28.83	32.13
Cost−sharing:				
Deductible	-1.59	-1.62	-1.64	-1.65
Coinsurance	-3.92	-4.58	-5.23	-5.85
Total benefits	16.41	19.15	21.96	24.63
Administrative expenses	1.41	1.38	1.73	1.84
Incurred expenditures	17.82	20.53	23.69	26.47
Value of Interest on fund[1]	-1.61	-1.96	-2.11	-2.21
Margin for contingencies and to amortize liabilities	2.79	6.43	3.42	.74
Promulgated monthly rate	19.00	25.00	25.00	25.00

[1]The values for 1977, 1978, and 1979 differ substantially from last year's promulgation notice due to refinements in the methodology for determining interest for disabled enrollees.

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 under alternate assumptions of the rates promulgated here. The most unpredictable factors which 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 indicates that, under the assumptions used in preparing this report, the promulgated monthly rates will result in an excess of assets over liabilities of $1,737 million by the end of June 1980. This amounts to 14.7 percent of the estimated total incurred expenditures for the following year. Assumptions which are somewhat more pessimistic produce an excess of assets over liabilities of $206 million by the end of June 1980, which amounts to 1.5 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 assets over liabilities of $2,777 million, which amounts to 26.1 percent of the estimated total incurred expenditures for the following year.

Table 5.—PROJECTION FACTORS AND THE ACTUARIAL STATUS OF THE SMI TRUST FUND UNDER ALTERNATIVE SETS OF ASSUMPTIONS YEARS ENDING JUNE 30 OF 1979-1980

	This Projection		Low Assumption		High Assumption	
	1979	1980	1979	1980	1979	1980
Projection factors (in percent):						
Physicians' fees[1]	7.9	7.5	6.9	6.5	9.4	9.0
Utilization of physicians' services[2]	3.0	3.0	1.0	1.0	5.5	5.5
Outpatient hospital services per enrollee[3]	15.0	15.0	5.0	5.0	30.0	30.0
Home Health Agency services per enrollee[3]	15.0	15.0	5.0	5.0	30.0	30.0
Actuarial status (in millions):						
Assets	$4,782	$4,655	$5,022	$5,521	$4,444	$3,386
Liabilities	2,565	2,918	2,491	2,744	2,671	3,180
Assets less liabilities	2,217	1,737	2,531	2,777	1,773	206
Ratio of assets less liabilities to expenditures (In percent)[4]	21.6	14.7	26.4	26.1	15.7	1.5

[1]As recognized for payment under the program.
[2]Increase in the number of services received per enrollee and greater relative use of more expensive services.
[3]The values for 1979 differ significantly from those contained in last year's promulgation notice due to an additional year's data which support the current values.
[4]Ratio of assets less liabilities at the end of the year to the total Incurred expenditures during the following year, expressed as a percent.

5. Standard 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:

(a) The adequate actuarial rate for enrollees age 65 and older; or

(b) 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 dime).

The standard monthly premium rate for the 12-month period ending with June 30, 1979, is $8.20. The OASDI benefit table was increased 6.5 percent in June 1978. The $8.20 rate, increased by 6.5 percent and rounded to the nearer ten cent multiple, is $8.70. Since this is less than the adequate actuarial rate, the standard premium rate is $8.70 for the 12 months ending with June 1980.