## 1977 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 1977 ANNUAL REPORT OF THE BOARD, PURSUANT TO SECTION 1841(b) OF THE SOCIAL SECURITY ACT, AS AMENDED



May 10, 1977.—Referred to the Committee on Ways and Means and ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE

89-354 O

WASHINGTON: 1977



### LETTER OF TRANSMITTAL

Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund, Washington, D.C., May 9, 1977.

The Speaker of the House of Representatives, Washington, D.C.

Sir: We have the honor to transmit to you the 1977 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund (the 12th 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.

JAMES B. CARDWELL,
Commissioner of Social Security
and Secretary, Board of Trustees.

(III)



#### LETTER OF TRANSMITTAL

BOARD OF TRUSTEES OF THE FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND, Washington, D.C., May 9, 1977.

The President of the Senate, Washington, D.C.

Sir: We have the honor to transmit to you the 1977 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund (the 12th 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.
James B. Cardwell,
Commissioner of Social Security
and Secretary, Board of Trustees.



## CONTENTS

The Board of Trustees
Highlights
Social Security Amendments Since the 1976 Report.
Nature of the Trust Fund
Summary of the Operations of the Trust Fund, Fiscal Year 1976
Expected Operations and Status of the Trust Fund During the Period July
1 1976 to December 31, 1979
Actuarial Status of the Trust Fund
Conclusion
Annendices:
A. 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 1977.
B. Actuarial methodology and principal assumptions for cost esti- mates for the supplementary medical insurance program
(VII)

## 1977 ANNUAL REPORT OF THE BOARD OF TRUST-EES OF THE FEDERAL SUPPLEMENTARY MED-ICAL 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 Commissioner of Social Security 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 Report is the annual report for 1977, the twelfth such report.

Highlights

(a) Expenditures of the supplementary medical insurance trust fund increased 24 percent in fiscal year 1976 over 1975. 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 16 percent in fiscal year 1976 over 1975. 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 \$206 million to \$1,219 million during 1976. This resulted from cost increases greater than those anticipated when financing for fiscal year 1976 was established. The financing for the 2 following years has been established to restore the losses of the program during 1976.

(d) In December of 1976, the Secretary of the Health, Education, and Welfare promulgated a standard monthly premium rate of \$7.70 and adequate actuarial rates of \$12.30 for the aged enrollees and \$25.00 for the disabled enrollees for the 12-month period beginning

July 1, 1977.

(e) 22.2 million persons aged 65 and over were enrolled in the program in July 1976. This is about 95 percent of the aged population. An additional 2.2 million disabled beneficiaries were enrolled in the same month.

#### SOCIAL SECURITY AMENDMENTS SINCE THE 1976 REPORT

Public Law 94–368, which was enacted on July 16, 1976, amends the medicare law to: (1) provide that the prevailing charge for a physician's service in any period after fiscal year 1976 shall not, by reason of the economic index limitation on such prevailing charge increases, be lower than the prevailing charge for that service in fiscal year 1975; (2) provide that reasonable charge screens under part B shall continue to be updated on July 1 of each year, rather than on October 1 as had been provided under earlier legislation designed to modify Federal programs to conform with the new October-September Federal fiscal year; and (3) extend to October 1, 1977, the interim provisions of Public Law 93–233 under which teaching physicians may be reimbursed on a cost basis if the hospital in which they teach elects to receive payment for their services and all physicians in the hospital agree not to bill individually for their professional services to medicare patients.

Public Law 94-460, enacted October 8, 1976, is designed to unify the definition of a health maintenance organization (HMO) under the HMO Act and under medicare, except that under medicare an HMO must offer the benefits covered under parts A and B of the program in lieu of the basic and supplemental benefits required under the HMO Act.

Public Law 94-505, enacted October 15, 1976, includes an amendment establishing an Office of the Inspector General in HEW to direct, conduct, supervise, and establish policies with respect to audits and investigations concerning all programs and operations within the Department, including antifraud and abuse activities related to the medicare program.

#### 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 to hold the amounts accumulated under the supplementary medical insurance program. All the financial operations which relate to 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 require-

ments, 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, Education, and Welfare. The standard monthly premium rates in effect from the beginning of the program, July 1966 through June 1977, and the rate promulgated for July 1977 through June 1978, are shown in table 1. Adequate actuarial rates in effect from July 1973 through June 1977, and the rates promulgated for July 1977 through June 1978, are also shown.

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 payment 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 construction, rental, and lease or purchase contract of office buildings and related facilities for the Social Security Administration. 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 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 by the Managing Trustee 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.

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-	4,00 _			
1971	5, 30			
1972	5. 60			
1973	5. 80			
1974 1	6. 30	\$6.30		
1975	6.70	6. 70	\$14.50	
1976	6.70	7. 50	18.00	
1977	7. 20		18. 50	
1978	7. 20	10. 70	19.00	
AV. V	7.70	12. 30	25.00	

In 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.

# SUMMARY OF THE OPERATIONS OF THE TRUST FUND, FISCAL YEAR 1976

A statement of the income and disbursements of the Federal Supplementary Medical Insurance Trust Fund during fiscal year 1976 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 1975 are also shown in the table.

The total assets of the trust fund amounted to \$1,424 million on June 30, 1975. During fiscal year 1976, total receipts amounted to \$4,994 million, and total disbursements were \$5,200 million. Total assets thus decreased \$206 million during the year to a total of \$1,219

million on June 30, 1976.

Of the total receipts, \$1,783 million represented premium payments by (or on behalf of) participants aged 65 and over, and \$168 million represented premium payments by (or on behalf of) disabled participants under age 65. Total premium payments amounted to \$1,951 million, an increase of 3.4 percent over premium payments by participants in the preceding fiscal year. This increase in premiums from participants resulted primarily from the expected growth in the number of persons enrolled in the supplementary medical insurance program.

Contributions received from the general fund of the Treasury amounted to \$2,939 million. This amount consisted of \$2,206 million representing contributions relating to premiums paid by participants aged 65 and over, \$731 million representing contributions relating to the premiums paid by disabled participants under age 65, and \$3 million in interest on delayed transfers of Government contributions.

TABLE 2.—STATEMENT OF OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND DURING FISCAL YEARS 1975 AND 1976

Jin	thousands	of	doll	arsl
-----	-----------	----	------	------

	Fiscal year 1975	Fiscal year 1976					
Total assets of the trust fund, beginning of year	\$1, 272, 177	\$1, 424, 413					
Receipts: Premiums from participants: Participants aged 65 and over Disabled participants under age 65	1, 736, 209 150, 753	1, 782, 818 168, 403					
Total premiums	1, 886, 962	1, 951, 221					
Transfers from general fund of the Treasury: Government contributions: For premiums received from participants aged 65 and over For premiums received from disabled participants under age 65	1, 710, 559 619, 029	2, 205, 709 730, 629					
Total Government contributions	2, 329, 588 2	2, 936, 338 3, 000					
Total transfers from general fund of the Treasury	2, 329, 590	2, 939, 338					
Interest: Interest on investments	104, 403 1, 136	103, 670 —25					
Total interestGifts	105, 539	103, 645					
Total receipts	4, 322, 090	4, 994, 206					
Disbursements:  Benefit payments:  Paid directly from the trust fund for costs of health services.  Transfers to the hospital insurance trust fund for reimbursement of interest loss related to transfer payments made in conjunction with the costs of	3, 759, 225	4, 665, 003					
radiology and pathology services 2	6, 000	6, 000					
Total benefit payments Costs of experiments and demonstration projects 2	3, 765, 225 172	4, 671, 003 844					
See footnotes at end of table.							

TABLE 2.—STATEMENT OF OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND DURING FISCAL YEARS 1975 AND 1976—Continued

#### [in thousands of dollars]

	Fiscal year 1975	Fiscal year 1976
Disbursements—Continued		
Administrative expenses:		
Department of Health, Education, and Welfare 3	423, 316	513, 372
Treasury Department.	113	125
Raitroad Retirement Board	1, 101	1, 218
Civil Service Commission	. 72	. 94
Construction of facilities for Social Security Administration	213	144
Administrative expenses 4	20, 891	13, 138
Construction costs 4	533	156
Gross administrative expenses	404, 458	528, 246 30
Net administrative expenses	404, 458	528, 216
Total disbursements	4, 169, 855	5, 200, 063
Net addition to the trust fund	152, 235	-205, 857
Total assets of the trust fund, end of year	1, 424, 413	1, 218, 555

<sup>1</sup> A positive figure represents a transfer of interest to the supplementary medical insurance trust fund from the other social security trust funds. A negative figure represents a transfer of interest from the supplementary medical insurance trust fund to the other social security trust funds.

<sup>2</sup> For explanation, see text. <sup>3</sup> Includes administrative expenses of the carriers and intermediaries.

social security trust funds.

The remaining \$104 million of receipts consisted almost entirely of interest on the investments of the trust fund.

Of the \$5,200 million in total disbursements, \$4,665 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 1976, therefore, amounted to \$4,671 million, an increase of 24.1 percent over the corresponding amount paid in fiscal year 1975.

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 1976, payments for such costs amounted to about \$844,000.

The remaining \$528 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. Periodically, as actual experience develops and is analyzed, adjustments to the allocations of administrations expenses and costs of construction for prior periods are effected by interfund transfers, with appropriate interest allowances.

In table 3, the experience with respect to actual amounts of participants' premiums, Government contributions, and benefit payments

<sup>3</sup> 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 social security trust funds. A negative figure represents a transfer to the supplementary medical insurance trust fund from the other

in fiscal year 1976 is compared with the estimates for fiscal year 1976 which appeared in the 1975 and 1976 annual reports. The actual experience was relatively close to the estimates for premiums and Government contributions. Actual benefit payments were 10 percent higher than estimated in the 1975 report and were quite close to the estimate in the 1976 report.

The assets of the trust fund at the end of fiscal year 1976 totaled \$1,219 million, consisting of \$1,230 million in the form of obligations of the U.S. Government and, as an offset, an overdraft of \$12 million which was covered by the redemption of securities on July 1, 1976. Table 4 shows a comparison of the total assets of the fund and their distribution at the end of fiscal years 1975 and 1976. A comparison of the assets of the trust fund with liabilities for incurred but unpaid benefits (and related administrative expenses) is shown in a later section.

The net decrease in the par value of the investments held by the fund during fiscal year 1976 amounted to \$148 million. New securities at a total par value of \$4,980 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 \$5,128 million. Included in these amounts is \$4,818 million in certificates of indebtedness that were acquired and redeemed within the fiscal year.

The effective annual rate of interest earned by the assets of the supplementary medical insurance trust fund during fiscal year 1976 was 7.2 percent. The interest rate on public-debt obligations issued for purchase by the trust fund in June 1976 was 7.5 percent, payable semiannually.

TABLE 3.—COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND, FISCAL YEAR 1976

(Dollar amounts in millions)

		Comparison of a	ectual experience 1976 publis	with estimates hed in—	for fiscal year	
	-	1976 r	eport	1975 report		
Item	Actual amount	Estimated amount	Actual as percentage of estimate	Estimated amount	Actual as percentage of estimate	
Premiums from participants	\$1, 951 2, 939 4, 671	\$1, 921 2, 939 4, 687	102 100 100	\$1, 913 2, 939 4, 260	102 100 110	

Note: In interpreting the figures in the above table, reference should be made to the accompanying text.

TABLE 4.—ASSETS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1975 AND 1976

	June	30, 1975	June 30, 1976		
	Par value Book value <sup>1</sup>		Par value	Book value 1	
Investments in public-debt obligations sold only to this fund (special issues): Notes: 5% percent, 1979	\$232, 150, 000	\$232, 150, 000. 00	<b>\$</b> 51, 094, 000	\$51, 094, 000. 00	
6½ percent, 1978 6½ percent, 1980	129, 200, 000 281, 762, 000	129, 200, 000. 00 281, 762, 000. 00	281, 762, 000	281, 762, 000. 00	

TABLE 4.—ASSETS OF THE SUPPLEMENTAL MEDICAL INSURANCE TRUST FUND, BY TYPE, AT THE END OF FISCAL YEARS 1975 AND 1976---Continued

	June 3	30, 1975	June 3	0, 1976
	Par value	Book value 1	Par value	Book value 1
Investments in public-debt obligations sold				
only to this fund (special issues)—Con.				
Bonds:	11 547 000	11 547 000 00	11 517 000	
73% percent, 1981	11, 547, 000	11, 547, 000. 00	11, 547, 000	11, 547, 000. 00
73% percent, 1982	11, 547, 000	11, 547, 000. 00	11, 547, 000	11, 547, 000. 00
73's percent, 1983	11, 546, 000 11, 546, 000	11, 546, 000. 00	11, 546, 000	11, 546, 000. 00
7% percent, 1985	11, 546, 000	11, 546, 000. 00	11, 546, 000	11, 546, 000. 0
7% percent, 1985	11, 547, 000	11, 546, 000. 00 11, 547, 000. 00	11, 546, 000	11, 546, 000. 0
73% percent, 1987	11, 547, 000	11, 547, 000, 00	11, 547, 000 11, 547, 000	11, 547, 000. 0
73% percent, 1988.	11, 547, 000	11, 547, 000, 00	11, 547, 000	11, 547, 000. 00 11, 547, 000. 00
73. parcent 1000	11 547 000	11, 547, 000, 00	11, 547, 000	11, 547, 000. 0
73% percent, 1990	73, 510, 000	73, 510, 000, 00	73, 510, 000	73, 510, 000. 0
7½ percent, 1981	73, 310, 000	75, 510, 000. 00	8, 060, 000	8, 060, 000, 0
7½ percent, 1982			8, 060, 000	8, 060, 000, 0
7½ percent, 1983			8, 061, 000	8, 061, 000. 0
7½ percent, 1984			8, 061, 000	8, 061, 000. 0
7½ percent, 1985			8, 061, 000	8, 061, 000. 0
7½ percent, 1986			8, 061, 000	8, 061, 000. 0
7½ percent, 1987			8, 061, 000	8, 061, 000, 0
7½ percent, 1988			8, 061, 000	8, 061, 000. 0
7½ percent, 1989	·		8, 061, 000	8, 061, 000. 0
7½ percent, 1990			8, 060, 000	8, 060, 000. 0
7½ percent, 1991			81, 570, 000	81, 570, 000, 0
75% percent, 1981			61, 964, 000	61, 964, 000, 0
7% percent, 1982		61, 964, 000. 00	61, 964, 000	61, 964, 000. 0
75% percent, 1983	61, 964, 000	61, 964, 000. 00	61, <b>964</b> , 000	61, 964, 000. 0
7% percent, 1984	61, 964, 000	61, 964, 000. 00	61, 964, 000	61, 964, 000. 0
7% percent, 1985	61, 964, 000	61, 964, 900, 00	61, 964, 000	61, 964, 000. 0
7% percent, 1986	61, 963, 000	61, 963, 000. 00	61, 963, 000	61, 963, 000. 0
75% percent, 1987	61, 963, 000	61, 963, 000. 00	61, 963, 000	61, 963, 000. 0
75% percent, 1988	61, 963, 000	61, 963, 000. 00	61, 963, 000	61, 963, 000. 0
7% percent, 1989	61, 963, 000	61, 963, 000. 00	61, 963, 000	61, 963, 000. 0
Total investments in public-			·····	
debt obligations	1 378 214 000	1 279 214 000 00	1 220 125 000	1 220 125 000 0
dent onigations	1, 3/0, 214, 000	1, 3/0, 214, 000, 00	1, 230, 135, 000	1, 230, 135, 000. 0
Undisbursed balance		46 198 547 97		<sup>2</sup> -11, 579, 689. 3
Total assets		70, 130, 347. 37		11, 3/3, 003. 3

Par value, plus unamortized premium, less discount outstanding.
 A minus figure represents an overdraft which is covered by the redemption of securities on the 1st working day of the following month.

EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND DURING THE PERIOD JULY 1, 1976, TO DECEMBER 31, 1979

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

Standard premium rates and adequate actuarial rates have been promulgated for periods through June 30, 1978. 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 were increased 10.8 percent in the 1976 revision of the fee limits. This revision was delayed approximately 3 months because of technical difficulties in the law that required congressional action. As a result the average increase for the entire 12-month period July 1976 to June 1977 over the prior 12-month period is estimated to be about 7.2 percent. The projections assume that allowable fees will increase 9.5 percent in July 1977. The costs per enrollee for institutional serv-

ices under part B are projected to increase 30 percent for the 12-month period beginning July 1, 1976, over the previous 12 months and an additional 30 percent for the 12-month period beginning July 1, 1977.

Table 5 shows the projected operations of the trust fund on a fiscal year basis through fiscal year 1979. Table 5A shows the corresponding development on a calendar year basis. The trust fund declined in fiscal year 1976 due primarily to cost increases higher than those anticipated when the fiscal year 1976 financing was established. However, the adequate rates for the periods July 1, 1976, to June 30, 1977, and July 1, 1977, to June 30, 1978, were promulgated with a specific margin to improve the status of the trust fund. As a result the fund is projected to increase to \$2.1 billion by the end of fiscal year 1977 and to \$3.1 billion by the end of fiscal year 1978.

TABLE 5.—ESTIMATED PROGRESS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS), FISCAL YEARS 1977-79 AND ACTUAL DATA FOR 1967-INTERIM

He	millions	ω£	dali	are l
un	millions	Of	con	arsı

alance in d at end of year *	Total xpend- itures	Total income	Interest on fund	Admin- istration expenses	Benefit payments	Govern- ment contribu- tions <sup>1</sup>	Premiums from participants	Fiscal year
\$486	\$799	e1 305	<b>+</b> 15	2 0124	<b>*</b> CC4	ec22	2617	Actual experience:
307	1, 532	\$1, 285 1, 353	\$15 21	* \$134 143	\$664 1, 390	\$623 634	\$647	1967
378	1, 840	1, 333	21 23 12 17 29 45 76	195	1,350	094	698 903	1968
57	2 106	1, 911	12	217	1, 645 1, 979	984 928	936	1969
290	2, 196 2, 283	1, 911 1, 876 2, 516	17	248	2, 035	1, 245	1, 253	1970
481	2, 544	2, 310	20	288	2, 255	1, 365	1, 233	1972
746	2, 637	2,002	45	246	2, 391	1, 430	1, 340	1973
1, 272	3, 283	2, 734 2, 902 3, 809 4, 322 4, 994 1, 421	76	409	2, 874	2, 029	1, 340 1, 427 1, 704 1, 887 1, 951	
1, 424	4, 170	A 222	106	404	3, 765	2, 330	1,704	
1, 210	5, 200	4, 004	104	529	4, 671	2, 939	1,007	
1, 219 1, 239	1, 401	1 421	4	133	1, 268	2, 333 878	539	1.1.1
1, 200	1, 401	1, 421	•	133	1, 200	0/0	233	
2, 084	6 506	7 351	119	507	5 000	5.052	2 190	1077 K
3, 000	7 923	8, 038			7 225	5,000	2, 100	
3, 099 3, 542	0 313	9, 756				U, 303	2, 3/4	
	6, 506 7, 923 9, 313	7, 351 8, 938 9, 756	118 181 225	507 5 <b>98</b> 636	5, <b>999</b> 7, 325 8, 677	5, 053 6, 383 6, 981	2, 180 2, 374 2, 550	Estimate of future experience: 1977 5 1978 5 1979 5

The payments shown as being from the general fund of the Treasury include certain interest-adjustment items.
 The financial status of the program depends on both the total net assets and the liabilities of the program (see table 7).
 Administrative expenses shown include those paid in fiscal 1966 and 1967.
 Interim period is period from July 1, 1976 to Sept. 30, 1976.
 Beginning with fiscal year 1977 the fiscal year is the 12-month period ending with Sept. 30 of the year indicated.

TABLE 5A.—ESTIMATED PROGRESS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS), CALENDAR YEARS 1977-79 AND ACTUAL DATA FOR 1966-76

I In millions of dollars

Calendar year	Premiums from partici- pants	Govern- ment contri- butions <sup>1</sup>	Benefit payments	Adminis- trative expenses	Interest on fund	Total income	Total expendi- tures	Balance in fund at end of year <sup>2</sup>
Actual experience:					••	****	****	e190
1966		\$0 933	\$128	\$75	\$3 24 21 18 12 24 37 57 95	\$324	\$203	\$122 412
1967		933	1, 197	110	24	1, 597	1, 307	421
1968		858	1,518	183	21	1, 711 1, 839	1, 702 2, 061	199
1969	914	907	1,865	196	10	2, 201	2, 212	188
1970	1, 096	1, 093	1, 975	238	12	2, 639	2, 377	450
1971	1,302	1, 313	2, 117 2, 325	260	27	2,808	2, 614	643
1972		1, 389 1, 705	2, 325	290	27	3, 311	2, 844	1 111
1973	1, 550	1, /05	2, 526 3, 318	318	06	4, 124	3, 728	1, 111 1, 506 1, 444 1, 799
1974	1, 804	2, 225	3, 318	410	106	4, 673	4, 735	1, 500
1975	1,918	2, 648	4, 273	462			5, 622	1, 700
1976	2,060	3, 810	5,080	542	106	5, <b>9</b> 77	3, 022	1,755
Estimate of future								
experience:		F 000	£ 000	510	150	7 740	6, 846	2,701
1977	2, 230	5, 366	6, 328	518 606	152 2 <b>04</b>	7, 748 8, 889	8, 268	3, 322
1978	2, 418	6, 267	7,662		240	10, 112	9, 661	3, 773
1979	2, 595	7, 277	9, 016	645	240	10, 112	3, 001	3,113

<sup>1</sup> The payments shown as being from the general fund of the Treasury include certain interest-adjustment items. <sup>2</sup> The financial status of the program depends on both the total net assets and the liabilities of the program (see table 7).

### 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 is essentially 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; in testing its actuarial soundness, it is not appropriate to look beyond the period for which the standard premium rate and the level of general revenue financing have been established. Financing has now been established through June 1978.

The primary test of actuarial soundness relates to the adequacy of the income for future years for which the premium rate and the level of general revenue financing have been established. The income for such years should be sufficient to meet the benefits incurred and associated administrative expenses for the period. The law requires the Secretary of Health, Education, and Welfare to establish the

income of this basis.

A second test of actuarial soundness is whether the trust fund assets, at the end of the period for which the premium rate and the level of general revenue financing have been established, will be as large as the liabilities for services (and associated administrative expenses) that have been performed but for which reimbursement has not yet been made. This test will be met if the primary test of actuarial soundness has been met for all prior periods, but it may not be met, even though the financing is currently adequate and the primary test is therefore met, if in the past the income was inadequate to meet incurred benefits and administrative expenses.

Even if these two tests of actuarial soundness are not met, the program can continue to operate if the trust fund remains at an adequate level to permit the payment of claims as presented.

## 2. INCURRED EXPERIENCE OF THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM

Both of 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 for only a sample of beneficiaries, the data is subject to bias and random fluctuation inherent in the sampling process.

Table 6 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 controls, such as cash outlay data, assure that the estimates are

reasonably close, however.

Table 6 shows that income during fiscal year 1976 is projected to be less than the cost of services rendered during that year. This results from cost and utilization increases greater than those anticipated at the time the adequate rate for that period was determined. The adequate actuarial rates for the aged for the years ending June 30, 1977 and 1978 contain specific margins to amortize the deficits that result from earlier underfinancing. Thus a surplus of income over outgo is shown for the years ending June 30, 1977 and 1978.

TABLE 6.—ESTIMATED INCOME AND DISBURSEMENTS INCURRED UNDER SUPPLEMENTARY MEDICAL INSURANCE PROGRAM, 12-MONTH PERIODS ENDING JUNE 30, 1967-78

12-month period ending June 30:	Premiums from participants	Government contributions	Benefit payments	Administrative expenses	Interest on fund	Net of operations in year
Past experience: 1967	\$647 698 903 936 1, 253 1, 340 1, 427 1, 704 1, 887 1, 951	\$647 698 903 936 1, 253 1, 340 1, 427 2, 031 2, 395 2, 970	\$1, 109 1, 450 1, 774 1, 905 2, 083 2, 285 2, 513 3, 147 3, 981 4, 971	210 209 254 292 259 448 427	\$15 21 23 12 17 29 45 76 106	\$10 182 155 230 186 133 127 216 26 506
Projected: 19771978	2, 129 2, 330	4, 652 5, 849	5, <b>9</b> 50 7, 407	539 610	124 184	410 346

[In millions of dollars]

## 3. ACCUMULATED SURPLUS OR DEFICIT OF THE PROGRAM

The liability outstanding at any time for the cost of services performed for which no payment has been made may be 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 7.

<sup>1</sup> includes administrative expenses incurred prior to the beginning of the program.

TABLE 7.—SUMMARY OF ESTIMATED ASSETS AND LIABILITIES OF THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM, ON JUNE 30, 1967-78
[Dollar amounts in millions]

	Past experience as of June 30—										Projected as of June 30-	
	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Assets:						·						
Balance in trust fund Government contributions due and	\$486	\$307	\$378	\$57	\$290	\$481	\$746	\$1, 272	\$1, 424	\$1, 219	\$1, 925	\$2, 84
unpaid	24	88	7	15	22	-3	7	5	66	100	117	<b>\$2,04</b>
Total assets	510	395	385	72	312	478	739	1, 267	1, 490	1, 319		
iabilities:								1, 20,	1, 490	1, 319	2, 042	2, 84
Benefits incurred but unpaid Administrative cost thereon	445 56	505 62	634 77	560 69	608 75	638 79	760 92	1, 033 131	1, 249 154	1, 549 188	1, 830 214	2, 25 24
Total liabilities	501	567	711	629	683	717						24
et surplus (or deficit)					003	/1/	852	1, 164	1, 403	1, 737	2, 044	2, 50
	9	-172	-326	557	-371	-239	-113	103	87	418	2	34
atio of assets to liabilities	1. 02	. 70	. 54	. 11	. 46							
				. 11	. 40	. 67	. 87	1.09	1.06	. 76	1.00	1. 14

12

For most years of the program, the assets have not been as large as the outstanding liabilities. Nonetheless, the fund has remained positive allowing claims to be paid. As of June 1974 and 1975 assets slightly exceeded the estimated liability for incurred but unpaid claims and associated administrative expenses, and thus the program could be considered sound according to the second test of actuarial soundness

stated earlier.

The financing deficit in fiscal year 1976 referred to above resulted in a program deficit of \$418 million at the end of June 1976. However, the trust fund remained substantial and at an adequate level to permit the payment of claims. Although the deficit did not interfere with the operation of the program, it was still serious in that it indicated that liabilities were not being funded as they occurred. Thus, if the program should have terminated or if the funding scheme should have been changed, there would not have been sufficient assets available to pay for all service incurred to the date of the change.

Consequently, specific margins were included in the aged actuarial rates for the 12-month periods ending June 30, 1977 and 1978 to amortize the deficit in fiscal year 1976. If experience develops as projected, the trust fund assets for the 12-month periods ending June 30, 1977 and 1978 will grow both as absolute dollar amounts and as a percentage of liabilities during those years, and by June 30, 1978, the

assets should exceed the outstanding liabilities.

### 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. These assumptions and the resulting status of the trust fund are shown in table 8 along with the intermediate projection used in this report.

TABLE 8.—ACTUARIAL STATUS OF THE SMI TRUST FUND UNDER 3 SETS OF ASSUMPTIONS FOR THE 12-MONTH
PERIOD ENDING WITH JUNE OF THE YEAR SHOWN

	Interme projec (this re	tion	Low-c projec		High-cost projection	
, <u>-</u>	1977	1978	1977	1978	1977	1978
Per enrollee increases over prior year in: Physician fees (percent) Physician utilization (percent)	1 10. 8 3. 0	9. 5 3. 0	10 2	9 2	12 6	10. 5 6. 0
Outpatient hospital and home health agencies (percent)	30.0	30.0	20	20	50	50.0
Assets as of June 30 (in millions)	\$2, 042 2, 044 -2	\$2, 846 2, 500 346	\$2, 150 2, 005 145	\$3, 274 2, 397 877	\$1, 799 2, 135 —336	\$1, 836 2, 750 —914
Ratio of assets to liabilities	100	114	107	137	84	67

<sup>1</sup> The effective rate of increase is lower than that shown because of the delay in updating the fee screens as discussed in

The average increase in allowable physician fees is made uncertain primarily by the recent introduction of an economic index which restricts the increase in prevailing fees. The intermediate projection assumes that this index will reduce average fee increases by approximately 1.5 percentage points in the first two years of operation and by 2 percentage points thereafter. The low cost projection assumes that the index will have a greater effect, and the high cost projection assumes that it will have a lesser effect.

Increases in the use of physician services per enrollee is projected to be near the long term historical level by 1977 in the intermediate projection. The low cost projection assumes that increases in utilization will drop below historical levels. The high cost projection assumes that the high increases experienced in fiscal years 1973 to 1975 will continue. A similar rationale underlies the selection of assumptions

for outpatient hospital and home health services.

Table 8 indicates that under the low cost assumptions, the trust fund assets will exceed liabilities by June 1977. Under the high cost assumptions, the deficit will increase substantially but the trust fund will remain positive allowing claims to be paid.

#### Conclusion

The financing of the supplementary medical insurance program has been established through June 30, 1978, by the promulgation of standard monthly premium rates (paid by or on behalf of the enrollee) of \$7.20 for the year ending June 30, 1977, and \$7.70 for the year ending June 30, 1978, and adequate actuarial rates which determine the amount to be contributed from general revenue on behalf of each enrollee.

The rates for fiscal year 1976 were inadequate due to cost and utilization increases larger than anticipated at the time the rates were established. As a result, the trust fund decreased \$206 million during fiscal year 1976 to \$1,219 million. The rates promulgated for the periods July 1976 through June 1977 and July 1977 through June 1978 are projected to be sufficient to cover benefit and administrative costs incurred during those periods and to make up the deficiency incurred during fiscal year 1976. Accordingly the trust fund is projected to increase by \$706 million during the 12-month period ending June 30, 1977, to a level of \$1,925 million and by \$921 million during the 12-month period ending June 30, 1978 to a level of \$2,846 million. The trust fund assets would then nearly cover program liabilities by June 30, 1977, and would be 14 percent greater than liabilities by June 30, 1978.

Under the intermediate assumptions used in this report, and under alternate, more pessimistic, assumptions the fund is projected to remain positive throughout the period for which financing has been established allowing claims to be paid as presented.