98TH CONGRESS, 1st Session | HOUSE OF REPRESENTATIVES | DOCUMENT No. 98-76

# 1983 ANNUAL REPORT

# FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND

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## COMMUNICATION

FROM

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

TRANSMITTING

THE 1983 ANNUAL REPORT OF THE BOARD, PURSUANT TO SECTION 1841(b) OF THE SOCIAL SECURITY ACT, AS AMENDED

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JUNE 28, 1983.—Referred to the Committees on Ways and Means and Energy and Commerce jointly and ordered to be printed.

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LETTER OF TRANSMITTAL

Board of Trustees of the
Federal Supplementary Medical Insurance Trust Fund
Washington, D.C., June 24, 1983

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

SIR: We have the honor to transmit to you the 1983 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund (the 18th such report), in compliance with the provisions of section 1841(b) of the Social Security Act.

Respectfully,

Donald T. Regan

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

Raymond J. Donovan

RAYMOND J. DONOVAN,
Secretary of Labor, and Trustee

Margaret M. Heckler

MARGARET M. HECKLER,
Secretary of Health and Human Services,
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CAROLYNE K. DAVIS, Ph.D.,
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TRANSMITTING

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# 1983 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. Currently, the board has three members, who serve in an ex officio capacity. The members are the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The Social Security Amendments of 1983 (Public Law 98-21, enacted into law on April 20, 1983) provide for the addition of two public members to the Board of Trustees. The two new members are to be nominated by the President for a term of 4 years, and are subject to confirmation by the Senate.

By law, the Secretary of the Treasury is designated as the Managing Trustee and the Administrator of the Health Care Financing Administration is designated as Secretary of the Board. The Board of Trustees reports to the Congress each year on the operation and status of the trust fund, in compliance with section 1841(b)(2) of the Social Security Act. This is the 1983 annual report, the eighteenth such report.

## HIGHLIGHTS

(a) Disbursements of the supplementary medical insurance trust fund increased 17.6 percent in fiscal year 1982 over 1981. Most of this increase resulted from higher physician fees recognized by the program and the use of more physician services by program enrollees.

(b) Income to the trust fund increased 41.7 percent in fiscal year 1982 over 1981. This resulted from increased actuarial rates which determine the general revenue contribution and from increased enrollment in the program.

(c) The trust fund increased $2,067 million to $5,810 million during 1982.

(d) In December of 1982, the Secretary of Health and Human Services promulgated a standard monthly premium rate of $13.50 and actuarial rates of $27.00 for the aged enrollees and $46.10 for the disabled enrollees for the 12-month period ending June 30, 1984. However, Public Law 98-21 provided that the standard monthly premium of $12.20, which applied to the 12-month period ending June 30, 1983, continue to apply until December 31, 1983. In addition, the actuarial rates promulgated in December 1982 would only apply to the 6-month period, July 1, 1983 to December 31, 1983.

(e) An average of 25.5 million persons aged 65 and over were enrolled in the program in fiscal year 1982. An additional 2.7 million disabled beneficiaries were enrolled in the same period.

## SOCIAL SECURITY AMENDMENTS SINCE THE 1982 TRUSTEES' REPORT

Public Law 97-248, the "Tax Equity and Fiscal Responsibility Act of 1982," which was enacted September 3, 1982, contains several provisions having an impact on the Federal Supplementary Medical Insurance Trust Fund. They are:

(1) The Secretary is authorized to issue regulations to limit the reasonable charge for the services of physicians who perform services in hospital outpatient departments to a percentage of the prevailing charge for similar services furnished in a physician's office. Thus, duplicate overhead payments are eliminated by taking into account the extent to which the overhead cost of an outpatient department have been included in the hospital's costs or charges. Effective for services provided on or after October 1, 1982.

(2) The basis upon which provider-based physicians are reimbursed are to be prescribed in regulations which distinguish between (a) professional medical services which are personally rendered to individual patients which contribute to the patient's diagnosis and treatment (reimbursed on the basis of reasonable charges under SMI), and (b) professional medical services of practitioners which are of benefit to patients generally (reimbursed on the basis of reasonable costs under HI). Reasonable cost reimbursement of provider-based services may not exceed a reasonable compensation equivalent established by the Secretary in regulations. Effective for cost reporting periods ending after September 30, 1982, but only for the portion occurring after that date.

(3) Reimbursement for assistants at surgery in hospitals where approved training programs exist and qualified staff physicians are available is prohibited, except under appropriate circumstances determined by the Secretary. Effective with respect to services performed on or after October 1, 1982.

(4) Payment for drugs that have been determined to be less than effective in use by the Food and Drug Administration is prohibited. Effective September 30, 1982.

(5) Medicare becomes the secondary payor for employees aged 65 through 69 (and their spouses of the same age) who are covered by health plan benefits of an employer. The Federal Age Discrimination in Employment Act (ADEA) is also amended so that an employer can no longer exclude from his health care plan those benefits covered by Medicare, and must offer his employees aged 65 through 69 and their dependents health benefits coverage under the same conditions as offered his younger employees. The Federal Age Discrimination in Employment Act is amended effective January 1983. The amendment to the Social Security Act is effective with respect to items and services furnished on or after January 1, 1983.

(6) Interest payments are required when the settlement of an account by or to a provider or supplier of services or physician (but not a beneficiary) takes longer than 30 days after the date of determination. Effective upon enactment.

(7) From July 1983 through June 1985, the monthly SMI premium is set at one-half the actuarial rate for aged enrollees. After June 1985 the determination of the premium rate will revert to the method used before enactment of this provision. Effective from July 1, 1983, through June 30, 1985.

(8) A special enrollment period for Medicare SMI is established for merchant seamen who can document their former eligibility for health benefits under the Public Health Service (PHS) Act before repeal of those benefits. The enrollment period extends from October 1 through December 31, 1982. Seamen who qualify may enroll without having to pay the late enrollment surcharge and can elect retroactive coverage to October 1, 1981. Effective the first month occurring at least 20 days after enactment.

(9) The Medicare contractor budgets will be supplemented by an additional $45 million for fiscal years 1983, 1984 and 1985. The additional funds must be used exclusively for provider audits and medical necessity review. Effective October 1, 1982.

(10) The Secretary is required to undertake an initiative to improve medical review performed by Medicare contractors and encourage similar efforts by private insurers and other private entities. Specific standards must be developed to measure the performance of Medicare contractors in identifying and reducing unnecessary utilization. Effective upon enactment.

Public Law 97-455, the "Virgin Islands Tax Reduction Act, " which was enacted on January 12, 1983 contains two provisions having an impact on the Federal Supplementary Medical Insurance Trust Fund. They are:

(1) The flow of continuing disability investigation cases (some of which involve Medicare benefits) sent to State agencies for periodic review may be reduced by the Secretary on a State-by-State basis depending on State workloads and staffing requirements. The slowing of review (and probably the rate of termination) is allowed even if it means that the initial periodic review cannot be completed within three years. Effective upon enactment.

(2) Medicare benefits may be continued, along with cash disability benefits, on request of the beneficiary through the Administrative Law Judge (ALJ) hearing on appealed termination decisions. If termination of benefits is upheld, the continued benefits would be treated as overpayments. Effective for benefits beginning January 1983 with respect to termination decisions made by State agencies between enactment and October 1983, but payment of such continued benefits could continue only through June 1984.

Public Law 97-448, the "Technichal Corrections of 1982," which was enacted on January 12, 1983, amends the provision in the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97-248) which extends Medicare coverage to Federal employees. The amendment defines "Medicare qualified Federal employment" and the conditions under which spouses

of transitionally insured Federal employees (those who use Federal employment on or before January 1, 1983, to qualify for entitlement) may become entitled. Spouses of Federal employees may qualify on the same basis as spouses of other insured workers and may become eligible for Medicare without waiting for the entitlement of the Federal employee. Effective January 1, 1983.

Public Law 98-21, "the Social Security Amendments of 1983", which was enacted April 20, 1983, contains five provisions having an impact on the Federal Supplementary Medical Insurance Trust Fund. They are:

(1) Trust fund operations would be removed from the unified budget beginning in fiscal year 1992.

(2) The premium applicable July 1, 1983 through December 31, 1983 is frozen at the rate which applied in June 1983. Some general revenues shall be added from July through December to compensate for keeping the smaller June 1983 premium for that period. Future premium increases shall apply on the calendar year. Effective upon enactment.

(3) Inpatient hospital services many no longer be provided by direct contracts and reimbursed under SMI. They may be supplied only by or under arrangements with the hospital subject to hospital insurance reimbursement requirements. However, the Secretary many waive this restriction for hospitals that have billed extensively under SMI. Effective with the first cost reporting period beginning on or after October 1, 1983.

(4) Workers who are disabled before age 31, recover and then become disabled after age 31, may be insured for disability benefits if they had coverage in half the calendar quarters after age 21 and through the quarter in which the later period of disability began. Effective for applications filed after enactment.

(5) Two members of the public are added to the Board of Trustees. The two public members are to be nominated by the President for terms of four years and confirmed by the Senate. Both public members cannot be members of the same political party. A person serving on the Board of Trustees is no longer considered a fiduciary and cannot be held personally liable for actions taken as a member of the Board of Trustees. Effective upon enactment.

## NATURE OF THE TRUST FUND

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

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

The premiums paid by participants are based on the standard monthly premium rate, which is the same for participants aged 65 and over and for disabled participants under age 65. Premiums paid for fiscal years 1967 through 1973 were matched by an equal amount of Government contributions. Beginning July 1973, the amount of Government contributions corresponding to premiums paid by each of the two groups of participants is determined by applying a ratio, prescribed in the law for each group, to the amount of premiums received from that group of participants. The ratio is equal to (1) twice the amount of the monthly 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 actuarial rates are promulgated each year by the Secretary of Health and Human Services. The standard monthly premium rates in effect from the beginning of the program, July 1966 through June 1983, and the rate for July 1983 through December 1983 are shown in table 1. Actuarial rates in effect from July 1973 through June 1983, and the rates applicable for July 1983 through December 1983 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 and Human Services and by the Department of the Treasury in carrying out the supplementary medical insurance provisions of title XVIII of the Social Security Act are charged to the trust fund. The Secretary of Health and Human Services certifies benefit payments to the Managing Trustee, who makes the payments from the trust fund in accordance therewith.

Hospitals, at their option, are permitted to combine their billing for both hospital costs and physician components of radiology and pathology

Table 1.--STANDARD MONTHLY PREMIUM RATES AND ACTUARIAL RATES

| | Standard monthly premium rate | Monthly actuarial rate | |
|---|---|---|---|
| | | Participants aged 65 and over | Disabled participants under age 65 |
| July 1966 - March 1968 | $ 3.00 | -- | -- |
| April 1968 - June 1970 | 4.00 | -- | -- |
| 12-month period ending June 30 of -- | | | |
| 1971 | 5.30 | -- | -- |
| 1972 | 5.60 | -- | -- |
| 1973 | 5.80 | -- | -- |
| 1974* | 6.30 | $6.30 | $14.50 |
| 1975 | 6.70 | 6.70 | 18.00 |
| 1976 | 6.70 | 7.50 | 18.50 |
| 1977 | 7.20 | 10.70 | 19.00 |
| 1978 | 7.70 | 12.30 | 25.00 |
| 1979 | 8.20 | 13.40 | 25.00 |
| 1980 | 8.70 | 13.40 | 25.00 |
| 1981 | 9.60 | 16.30 | 25.50 |
| 1982 | 11.00 | 22.60 | 36.60 |
| 1983 | 12.20 | 24.60 | 42.10 |
| July 1983 - December 1983 | 12.20 | 27.00 | 46.10 |

* 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.

services rendered hospital inpatients by hospital-based physicians. Where hospitals elect this billing procedure, payments are made initially from the Hospital Insurance Trust Fund, with reimbursement later to it from the Supplementary Medical Insurance Trust Fund. The reimbursements so made are on a provisional basis and are subject to adjustment, with appropriate interest allowances, as the actual experience develops and is analyzed.

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

Congress has authorized expenditures from the trust funds for construction, rental, and lease or purchase contracts of office buildings and related facilities for use in connection with the supplementary medical insurance program. Both the capital costs of construction financed directly from the trust fund and the rental, lease, or purchase contract costs of acquiring facilities are included in trust fund expenditures. In 1972-75, construction of several large facilities was authorized under purchase contract authority, wherein initial capital costs were borne by the private sector. Under this method of facilities acquisition, trust fund expendi-

tures for use and ultimate Government ownership of a facility are made over periods of from 10 to 30 years. Whatever the manner of acquisition, the net worth of facilities and other fixed capital assets is not carried in the statement of the assets of the trust fund presented in this report. This is because the value of fixed capital assets does not represent funds available for benefit or administrative expenditures and, therefore, is not viewed as being a consideration in assessing the actuarial status of the funds.

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

The Social Security Act authorizes the issuance of special public-debt obligations for purchase exclusively by the trust fund. The law requires that such special public-debt obligations shall bear interest at a rate based on the average market yield (computed on the basis of market quotations as of the end of the calendar month next preceding the date of such issue) on all marketable interest-bearing obligations of the United States forming a part of the public debt which are not due or callable until after the expiration of 4 years from the end of such calendar month.

SUMMARY OF THE OPERATIONS OF THE TRUST FUND, FISCAL YEAR 1982

A statement of the income and disbursements of the Federal Supplementary Medical Insurance Trust Fund in fiscal year 1982 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 1981 are also shown in the table.

The total assets of the trust fund amounted to $3,743 million on September 30, 1981. During fiscal year 1982, total receipts amounted to $17,627 million, and total disbursements were $15,560 million. Total assets thus increased $2,067 million during the year to a total of $5,810 million on September 30, 1982.

Of the total receipts, $3,460 million represented premium payments by (or on behalf of) participants aged 65 and over, and $371 million represented premium payments by (or on behalf of) disabled participants under age 65. Total premium payments amounted to $3,831 million, an increase of 15.4 percent over the amount of $3,320 million for the preceding year. This increase in premiums from participants resulted primarily from (1) the growth in the number of persons enrolled in the supplementary medical insurance program and (2) the increase from $9.60 to $11.00 per month in the standard premium rate that became effective on July 1, 1981, and the increase from $11.00 to $12.20 per month in the standard premium rate that became effective on July 1, 1982.

Contributions received from the general fund of the treasury amounted to $13,323 million. This amount consisted of $11,208 million representing

Table 2.--STATEMENT OF OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND DURING FISCAL YEARS 1981 and 1982
(In thousands)

| | Fiscal year 1981 | Fiscal year 1982 |
|---|---|---|
| Total assets of the trust fund, beginning of period | $4,531,591 | $3,742,690 |
| Receipts: | | |
| Premiums from participants: | | |
| Participants aged 65 and over | 2,987,735 | 3,459,916 |
| Disabled participants under age 65 | 331,873 | 370,642 |
| Total premiums | 3,319,607 | 3,830,556 |
| Tranafers from general fund of the Treasury: | | |
| Government contributions: | | |
| For premiums received from participants aged 65 and over | 7,191,421 | 11,208,236 |
| For premiums received from disabled participants under age 65 | 1,556,009 | 2,114,776 |
| Total Government contributions | 8,747,430 | 13,323,012 |
| Other | 8 | 266 |
| Interest: | | |
| Interest on investments | 409,386 | 484,085 |
| Interest on amounts of interfund transfers 1/ | -37,072 | -10,683 |
| Total receipts | 12,439,359 | 17,627,038 |
| Disbursements: | | |
| Benefit Payments | 12,344,913 | 14,806,214 |
| Reimbursement to general fund: | | |
| Treasury Administrative Expenses | 367 | 1,420 |
| Civil Service Administrative Expenses | 0 | 0 |
| Railroad Retirement Board | 0 | 0 |
| Payment of Department of Health and Human Services Expenses: | | |
| Salaries and Expenses - SSA | 131,107 | 152,952 |
| Salaries and Expenses - HCFA | 533,853 | 517,863 |
| Salaries and Expenses Office of Secretary | 3,461 | 3,141 |
| Construction | 608 | 5,820 |
| Professional Standard Review Organization | -5,928 | 6,724 |
| Reimbursement of SSA Expenses 2/ | 4,726 | 368 |
| Reimbursement of HCFA 2/ | 215,154 | 65,233 |
| Total Disbursements | 13,228,261 | 15,559,735 |
| Net addition to the trust fund | -788,902 | 2,067,303 |
| Total assets of the trust fund, end of period | 3,742,690 | 5,809,993 |

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/ 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.

contributions relating to premiums paid by participants aged 65 and over, and $2,115 million representing contributions relating to the premiums paid by disabled participants under age 65.

The remaining $473 million of receipts consisted almost entirely of interest on the investments of the trust fund.

Of the $15,560 million in total disbursements, $14,806 million represented: (1) benefits paid directly from the trust fund for health services covered under Title XVIII of the Social Security Act; (2) transfers made to the hospital insurance trust fund 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, and (3) for costs of experiments and demonstration projects in providing health care services.

The remaining $754 million of disbursements was for net administrative expenses. Administrative expenses are allocated and charged directly to each of the four trust funds--old-age and survivors insurance, disability insurance, hospital insurance, and supplementary medical insurance--on the basis of provisional estimates. Similarly, the expenses of administering other programs of the Health Care Financing Administration are also allocated and charged directly to the general fund of the Treasury on a provisional basis. Periodically, as actual experience develops and is analyzed, adjustments to the allocations of administrative expenses and costs of construction for prior periods are affected by interfund transfers,

including transfers between the hospital insurance and supplementary medical insurance trust funds and the program management general fund account, with appropriate interest allowances.

In table 3, the experience with respect to actual amounts of participants' premiums, Government contributions, and benefit payments in fiscal year 1982 is compared with the estimates for fiscal year 1982 which appeared in the 1981 and 1982 annual reports. The actual experience was relatively close to the estimates for premiums, Governments contributions, and benefit payments.

The assets of the trust fund at the end of fiscal year 1981 totaled $3,743 million, consisting of $3,821 million in the form of obligations of the U.S. Government and, as an offset, an extension of credit of $79 million against securities to be redeemed. The assets of the trust fund at the end of fiscal year 1982 totaled $5,810 million, consisting of $5,874 million in the form of obligations of the U.S. Government and, as an offset, an extension of credit of $64 million against securities to be redeemed. Table 4 shows a comparison of the total assets of the fund and their distribution at the end of fiscal year 1981 and at the end of fiscal year 1982. 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.

The net decrease in the par value of the investments held by the fund during fiscal year 1981 amounted to $737 million. New securities at a total par value of $12,497 million were acquired during the fiscal year

Table 3.--COMPARISON OF ACTUAL AND ESTIMATED OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND, FISCAL YEAR 1982
(Dollar amounts in millions)

| Item | Actual amount | Comparison of actual experience with estimates for fiscal year 1982 published in--: 1982 report: Estimated amount | 1982 report: Actual as percentage of estimate | 1981 report: Estimated amount | 1981 report: Actual as percentage of estimate |
|---|---|---|---|---|---|
| Premiums from participants | $3,831 | $3,825 | 100 | $3,841 | 100 |
| Government contributions | 13,323 | 13,323 | 100 | 13,446 | 99 |
| Benefit payments | 14,806 | 14,903 | 99 | 14,378 | 103 |

TABLE 8.—ASSETS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND, AT THE END OF FISCAL YEARS 1981 AND 1982 1/

| | September 30, 1981 | September 30, 1982 |
|---|---|---|
| Investments in public-debt obligations sold only to this fund (special issues): | | |
| Certificates of indebtedness: | | |
| 12 1/4-percent, 1983 | ------ | $122,723,000.00 |
| 13 1/4-percent, 1983 | ------ | 135,906,000.00 |
| 13 7/8-percent, 1983 | ------ | 451,411,000.00 |
| 14 7/8-percent, 1982 | $192,839,000.00 | ------ |
| Bonds: | | |
| 7 1/8-percent, 1985 | 56,245,000.00 | 56,245,000.00 |
| 7 1/8-percent, 1986 | 56,245,000.00 | 56,245,000.00 |
| 7 1/8-percent, 1987 | 56,245,000.00 | 56,245,000.00 |
| 7 1/8-percent, 1988 | 56,245,000.00 | 56,245,000.00 |
| 7 1/8-percent, 1989 | 56,245,000.00 | 56,245,000.00 |
| 7 1/8-percent, 1990 | 56,246,000.00 | 56,246,000.00 |
| 7 1/8-percent, 1991 | 56,246,000.00 | 56,246,000.00 |
| 7 1/8-percent, 1992 | 137,816,000.00 | 137,816,000.00 |
| 7 3/8-percent, 1985 | 11,546,000.00 | 11,546,000.00 |
| 7 3/8-percent, 1986 | 11,547,000.00 | 11,547,000.00 |
| 7 3/8-percent, 1987 | 11,547,000.00 | 11,547,000.00 |
| 7 3/8-percent, 1988 | 11,547,000.00 | 11,547,000.00 |
| 7 3/8-percent, 1989 | 11,547,000.00 | 11,547,000.00 |
| 7 3/8-percent, 1990 | 73,510,000.00 | 73,510,000.00 |
| 7 1/2-percent, 1985 | 8,061,000.00 | 8,061,000.00 |
| 7 1/2-percent, 1986 | 8,061,000.00 | 8,061,000.00 |
| 7 1/2-percent, 1987 | 8,061,000.00 | 8,061,000.00 |
| 7 1/2-percent, 1988 | 8,061,000.00 | 8,061,000.00 |
| 7 1/2-percent, 1989 | 8,061,000.00 | 8,061,000.00 |
| 7 1/2-percent, 1990 | 8,060,000.00 | 8,060,000.00 |
| 7 1/2-percent, 1991 | 81,570,000.00 | 81,570,000.00 |
| 7 5/8-percent, 1984 | 57,403,000.00 | 49,019,000.00 |
| 7 5/8-percent, 1985 | 61,964,000.00 | 61,964,000.00 |
| 7 5/8-percent, 1986 | 61,963,000.00 | 61,963,000.00 |
| 7 5/8-percent, 1987 | 61,963,000.00 | 61,963,000.00 |
| 7 5/8-percent, 1988 | 61,963,000.00 | 61,963,000.00 |
| 7 5/8-percent, 1989 | 61,963,000.00 | 61,963,000.00 |
| 8 1/4-percent, 1984 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1985 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1986 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1987 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1988 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1989 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1990 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1991 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1992 | 115,978,000.00 | 115,978,000.00 |
| 8 1/4-percent, 1993 | 253,794,000.00 | 253,794,000.00 |
| 8 3/4-percent, 1984 | 72,935,000.00 | 72,935,000.00 |
| 8 3/4-percent, 1985 | 72,935,000.00 | 72,935,000.00 |
| 8 3/4-percent, 1986 | 72,934,000.00 | 72,934,000.00 |
| 8 3/4-percent, 1987 | 72,934,000.00 | 72,934,000.00 |
| 8 3/4-percent, 1988 | 72,934,000.00 | 72,934,000.00 |
| 8 3/4-percent, 1989 | 72,934,000.00 | 72,934,000.00 |
| 8 3/4-percent, 1990 | 72,934,000.00 | 72,934,000.00 |
| 8 3/4-percent, 1991 | 72,934,000.00 | 72,934,000.00 |
| 8 3/4-percent, 1992 | 72,934,000.00 | 72,934,000.00 |
| 8 3/4-percent, 1993 | 72,938,000.00 | 72,938,000.00 |
| 8 3/4-percent, 1994 | 326,728,000.00 | 326,728,000.00 |
| 9 3/4-percent, 1985 | 115,003,000.00 | 115,003,000.00 |
| 13 1/4-percent, 1984 | ------ | 130,068,000.00 |
| 13 1/4-percent, 1985 | ------ | 42,200,000.00 |
| 13 1/4-percent, 1986 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1987 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1988 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1989 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1990 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1991 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1992 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1993 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1994 | ------ | 42,201,000.00 |
| 13 1/4-percent, 1995 | ------ | 253,926,000.00 |
| 13 1/4-percent, 1996 | ------ | 368,928,000.00 |
| 13 1/4-percent, 1997 | ------ | 368,928,000.00 |
| Total investments in public-debt obligations... | 3,821,439,000.00 | 5,874,115,000.00 |
| Undisbursed balance | -78,749,328.42 2/ | -64,122,398.21 2/ |
| Total assets | 3,742,689,671.58 | 5,809,992,601.79 |

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 the redemption of securities on the first day of the following month.

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 $13,234 million. Included in these amounts is $12,395 million in certificates of indebtedness that were acquired, and $12,401 million in certificates of indebtedness that were redeemed, within the fiscal year.

The net increase in the par value of the investments held by the fund during fiscal year 1982 amounted to $2,053 million. New securities at a total par value of $19,631 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 $17,578 million. Included in these amounts is $17,718 million in certificates of indebtedness that were acquired, and $17,201 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 the 12 months ending on June 30, 1982, was 9.9 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 1982 was 13 1/4 percent, payable semiannually.

## EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND DURING THE PERIOD OCTOBER 1, 1982 TO DECEMBER 31, 1985

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 actuarial rates (on which general revenue contributions are based). Prior to June 30, 1983, these rates were applicable to 12-month periods ending June 30. Beginning January 1, 1984, Public Law 98-21 changed the annual basis to the 12-month periods ending December 31. For the 6-month period July 1, 1983 through December 31, 1983 (hereafter also called the transition semester), the standard monthly premium rate was frozen at the June 1983 rate, and the actuarial rates were set at the rates promulgated in December 1982 for the 12-month period ending June 30, 1984. In recent years, allowable fee limits for physician services have been established to apply to a July 1 to June 30 period.

Standard premium rates and actuarial rates have been set for periods through December 31, 1983. It has been assumed in this report that financing after that time will be established to cover the incurred expenses of the program.

The projections shown in the following tables are based on two sets of economic assumptions labeled alternative A and alternative B. These alternatives reflect two different levels of expectation of future performance of the economy. Appendix A presents an explanation of the effects of alternative A and alternative B on the projections in this report.

Under both projections it is assumed that allowable fees for physician services will increase an average of 9.6 percent for the 12-month period ending June 30, 1983 and will increase an average of 6.9 percent for the 12-month period ending June 30, 1984. The costs per enrollee for institutional and other services under SMI are projected to increase an average of 17 percent for the 12-month period ending June 30, 1983 over the previous 12 months and an additional 12 percent for the 12-month period ending June 30, 1984. These values reflect the implementation effects of Public Laws 96-499, 97-35, 97-248, and 98-21 on cost per enrollee increases.

Table 5 shows the projected operations of the trust fund on a fiscal year basis through fiscal year 1985. Table 6 shows the corresponding development on a calendar year basis. The trust fund balance was $5.8 billion at the end of fiscal year 1982. The actuarial rates for the 12-month period ending June 30, 1983 were promulgated with specific margins to maintain assets at a desirable level. Since it appeared that assets were more than sufficient to cover the incurred costs and to provide an appropriate contingency for the 12-month period ending June 30, 1984 (the financing period prior to Public Law 98-21), the actuarial rates for this period were set to reduce the assets to a more appropriate level. Public Law 98-21 provided that these actuarial rates are effective only for the 6-month period ending December 31, 1983. The fund is projected to increase to $6.5 billion under both alternatives by the end of fiscal year 1983 and then to increase to $7.6 billion by the end of fiscal year 1984.

Table 5.--ESTIMATED PROGRESS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS)
FISCAL YEARS 1983-1985 AND ACTUAL DATA FOR 1967-1982
(In millions)

| Fiscal year | Income | | | | Disbursements | | | Balance in fund at end of year 3/ |
|---|---|---|---|---|---|---|---|---|
| | Premiums from participants | Government contributions 1/ | Interest and other income 2/ | Total income | Benefit payments | Administrative expenses | Total disbursements | |
| Historical: | | | | | | | | |
| 1967 | $ 647 | $ 623 | $ 15 | $1,285 | $ 664 | $ 135 4/ | $ 799 | $ 486 |
| 1968 | 698 | 634 | 21 | 1,353 | 1,390 | 142 | 1,532 | 307 |
| 1969 | 903 | 984 | 24 | 1,911 | 1,645 | 195 | 1,840 | 378 |
| 1970 | 936 | 928 | 12 | 1,876 | 1,979 | 217 | 2,196 | 57 |
| 1971 | 1,253 | 1,245 | 18 | 2,516 | 2,035 | 248 | 2,283 | 290 |
| 1972 | 1,340 | 1,365 | 29 | 2,734 | 2,255 | 289 | 2,544 | 481 |
| 1973 | 1,427 | 1,430 | 45 | 2,902 | 2,391 | 246 | 2,637 | 746 |
| 1974 | 1,704 | 2,029 | 76 | 3,809 | 2,874 | 409 | 3,283 | 1,272 |
| 1975 | 1,887 | 2,330 | 105 | 4,322 | 3,765 | 405 | 4,170 | 1,424 |
| 1976 | 1,951 | 2,939 | 104 | 4,994 | 4,672 | 528 | 5,200 | 1,219 |
| Interim 5/ | 539 | 878 | 4 | 1,421 | 1,269 | 132 | 1,401 | 1,239 |
| 1977 | 2,193 | 5,053 | 137 | 7,383 | 5,867 | 475 | 6,342 | 2,279 |
| 1978 | 2,431 | 6,386 | 228 | 9,045 | 6,852 | 504 | 7,356 | 3,968 |
| 1979 | 2,635 | 6,841 | 363 | 9,839 | 8,259 | 555 | 8,814 | 4,994 |
| 1980 | 2,928 | 6,932 | 415 | 10,275 | 10,144 | 593 | 10,737 | 4,532 |
| 1981 | 3,320 | 8,747 | 372 | 12,439 | 12,345 | 883 | 13,228 | 3,743 |
| 1982 | 3,831 | 13,323 | 473 | 17,627 | 14,806 | 754 | 15,560 | 5,810 |
| Projected: | | | | | | | | |
| Alternative A: | | | | | | | | |
| 1983 | 4,191 | 14,238 | 651 | 19,080 | 17,537 | 810 | 18,347 | 6,543 |
| 1984 | 4,936 | 16,760 | 658 | 22,354 | 20,410 | 849 | 21,259 | 7,638 |
| 1985 | 5,734 | 18,895 | 700 | 25,329 | 23,621 | 890 | 24,511 | 8,456 |
| Alternative B: | | | | | | | | |
| 1983 | 4,191 | 14,238 | 651 | 19,080 | 17,537 | 812 | 18,349 | 6,541 |
| 1984 | 4,936 | 16,769 | 660 | 22,365 | 20,422 | 849 | 21,271 | 7,635 |
| 1985 | 5,760 | 18,983 | 707 | 25,450 | 23,695 | 894 | 24,589 | 8,496 |

1/ The payments shown as being from the general fund of the Treasury include certain interest-adjustment items.
2/ Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous income.
3/ The financial status of the program depends on both the total net assets and the liabilities of the program. (See Table 8)
4/ Administrative expenses shown include those paid in fiscal years 1966 and 1967.
5/ Interim Period is the period from July 1, 1976 to September 30, 1976 and is the transitional period between fiscal years beginning July 1 and fiscal years beginning October 1.

Table 6.--ESTIMATED PROGRESS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS)
CALENDAR YEARS 1983-1985 AND ACTUAL DATA FOR 1966-1982
(In millions)

| Calendar year | Income | | | | Disbursements | | | Balance in fund at end of year 3/ |
|---|---|---|---|---|---|---|---|---|
| | Premiums from participants | Government contributions 1/ | Interest and other income 2/ | Total income | Benefit payments | Administrative expenses | Total disbursements | |
| **Historical:** | | | | | | | | |
| 1966 | $ 322 | $ 0 | $ 2 | $ 324 | $ 128 | $ 75 | $ 203 | $ 122 |
| 1967 | 640 | 933 | 24 | 1,597 | 1,197 | 110 | 1,307 | 412 |
| 1968 | 832 | 858 | 21 | 1,711 | 1,518 | 184 | 1,702 | 421 |
| 1969 | 914 | 907 | 18 | 1,839 | 1,865 | 196 | 2,061 | 199 |
| 1970 | 1,096 | 1,093 | 12 | 2,201 | 1,975 | 237 | 2,212 | 188 |
| 1971 | 1,302 | 1,313 | 24 | 2,639 | 2,117 | 260 | 2,377 | 450 |
| 1972 | 1,382 | 1,389 | 37 | 2,808 | 2,325 | 289 | 2,614 | 643 |
| 1973 | 1,550 | 1,705 | 57 | 3,311 | 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 | 107 | 5,977 | 5,080 | 542 | 5,622 | 1,799 |
| 1977 | 2,247 | 5,386 | 172 | 7,805 | 6,038 | 467 | 6,505 | 3,099 |
| 1978 | 2,470 | 6,287 | 299 | 9,056 | 7,252 | 503 | 7,755 | 4,400 |
| 1979 | 2,719 | 6,645 | 404 | 9,768 | 8,708 | 557 | 9,265 | 4,902 |
| 1980 | 3,011 | 7,455 | 408 | 10,874 | 10,635 | 610 | 11,245 | 4,530 |
| 1981 | 3,722 4/ | 11,291 4/ | 361 | 15,374 | 13,113 | 915 | 14,028 | 5,877 |
| 1982 | 3,697 4/ | 12,284 4/ | 599 | 16,580 | 15,455 | 772 | 16,227 | 6,230 |
| **Projected:** | | | | | | | | |
| **Alternative A:** | | | | | | | | |
| 1983 | 4,204 | 14,735 | 645 | 19,584 | 18,224 | 819 | 19,043 | 6,771 |
| 1984 | 5,171 | 16,999 | 679 | 22,849 | 21,200 | 860 | 22,060 | 7,560 |
| 1985 | 5,921 | 19,527 | 718 | 26,166 | 24,491 | 901 | 25,392 | 8,334 |
| **Alternative B:** | | | | | | | | |
| 1983 | 4,204 | 14,735 | 645 | 19,584 | 18,226 | 821 | 19,047 | 6,767 |
| 1984 | 5,171 | 17,012 | 683 | 22,866 | 21,224 | 859 | 22,083 | 7,550 |
| 1985 | 5,956 | 19,640 | 732 | 26,328 | 24,591 | 906 | 25,497 | 8,381 |

1/ The payments shown as being from the general fund of the Treasury include certain interest-adjustment items.
2/ Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous income.
3/ The financial status of the program depends on both the total net assets and the liabilities of the program. (See Table 8)
4/ Section 706 of Title VII of the Social Security Act modified the provisions for the delivery of Social Security benefit checks when the regularly designated delivery day falls on a Saturday, Sunday or legal public holiday. Delivery of benefit checks normally due January, 1982 occurred on December 31, 1981. Consequently, the SMI premiums withheld from the checks ($264 million) and the general revenue matching contributions ($883 million) were added to the SMI Trust Fund on December 31, 1981. These amounts are excluded from the premium income and general revenue income for calendar year 1982.

## ACTUARIAL STUATUS 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 and Human Services to establish income on the basis of incurred costs. That is, the income to the program during a 12-month period for which financing is being established must be sufficient to pay for services (including associated administrative costs) expected to be rendered during that period even though payment for some of these services will not be made until after the close of the period. The portion of income required to cover those benefits not paid until after the close of the year is added to the trust fund until needed. Thus, the amount of assets in the trust fund at any time should be no less than the costs of the benefits and administration incurred but not yet paid. Since the income per enrollee (premium plus government contribution rate) is established prospectively, it is subject to projection error. As a result, the income to the program may not be equal to incurred costs; therefore trust fund assets should be maintained at a level which is adequate to cover the impact of a moderate degree of projection error as well as the value of incurred but unpaid expenses.

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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 and (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. 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. However, to protect against the possibility that cost increases under the program will be higher than assumed, assets should be sufficient to cover the impact of a moderate degree of projection error.

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

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

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

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

Table 7.--ESTIMATED INCOME AND DISBURSEMENTS INCURRED UNDER SUPPLEMENTARY MEDICAL INSURANCE PROGRAM FOR FINANCING PERIODS THROUGH DECEMBER 31, 1983
(In millions)

| Financing Period | Premiums from participants | Government contributions | Interest and other income | Benefit payments | Administrative expenses | Net operations in year |
|---|---|---|---|---|---|---|
| 12-month period ending June 30, Historical: | | | | | | |
| 1967 | $ 647 | $ 647 | $ 15 | $1,108 | $123 1/ | $ 78 |
| 1968 | 698 | 698 | 21 | 1,443 | 155 | -181 |
| 1969 | 903 | 903 | 24 | 1,766 | 190 | -126 |
| 1970 | 936 | 936 | 12 | 1,930 | 213 | -259 |
| 1971 | 1,253 | 1,253 | 18 | 2,090 | 259 | 175 |
| 1972 | 1,340 | 1,340 | 29 | 2,289 | 259 | 161 |
| 1973 | 1,427 | 1,426 | 45 | 2,499 | 300 | 99 |
| 1974 | 1,704 | 2,031 | 76 | 3,153 | 354 | 304 |
| 1975 | 1,887 | 2,396 | 105 | 3,945 | 437 | 6 |
| 1976 | 1,951 | 2,972 | 109 | 4,847 | 487 | -302 |
| 1977 | 2,156 | 4,697 | 157 | 5,914 | 520 | 576 |
| 1978 | 2,358 | 5,991 | 254 | 7,027 | 512 | 1,064 |
| 1979 | 2,601 | 6,570 | 365 | 8,274 | 649 | 613 |
| 1980 | 2,823 | 6,627 | 421 | 10,009 | 647 | -785 |
| 1981 | 3,178 | 8,219 | 371 | 12,140 | 725 | -1,097 |
| 1982 | 3,737 | 12,488 | 495 | 14,632 | 764 | 1,324 |
| Projected: | | | | | | |
| Alternative A: | | | | | | |
| 1983 | 4,178 | 13,782 | 655 | 17,477 | 802 | 336 |
| Transition Semester 2/ | 2,113 | 7,885 | 320 | 10,126 | 406 | -214 |
| Alternative B: | | | | | | |
| 1983 | 4,178 | 13,782 | 655 | 17,479 | 803 | 333 |
| Transition Semester 2/ | 2,113 | 7,885 | 320 | 10,128 | 407 | -217 |

1/ Includes administrative expenses incurred prior to the beginning of the program.
2/ The transition semester is the 6-month period July 1, 1983 to December 31, 1983.

## 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 the end of each financing period, 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 December 31, 1983. Based on this, financing assets are projected to exceed liabilities by $1,655 million at the end of June 1982. This excess is projected to increase to $1,989 million under alternative A and to $1,986 million under alternative B at the end of June 1983. The financing established for the 6-month period ending December 31, 1983 reduced this excess to a more appropriate level. As a result, the excess of assets over liabilities is expected to decrease to $1,773 million under alternative A and to $1,767 million under alternative B at the end of December 1983. These projected values as of December 31, 1983 amount to about 7.8 percent of incurred expenditures for the following calender year, a more appropriate level to cover the impact of a moderate degree of projection error.

Table 8.--SUMMARY OF ESTIMATED ASSETS AND LIABILITIES OF THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM, AS OF THE END OF THE FINANCING PERIOD, FOR PERIODS THROUGH DECEMBER 31, 1983
(Dollar amounts in millions)

| | Balance in trust fund | Government contributions due and unpaid | Total assets | Benefits incurred but unpaid | Administrative costs incurred but unpaid | Total liabilities | Excess of assets over liabilities | Ratio 1/ |
|---|---|---|---|---|---|---|---|---|
| As of June 30, Historical: | | | | | | | | |
| 1967 | $ 486 | $24 | $ 510 | $ 444 | $-12 | $ 432 | $ 78 | .05 |
| 1968 | 307 | 88 | 395 | 497 | 1 | 498 | -103 | -.05 |
| 1969 | 378 | 7 | 385 | 618 | -4 | 614 | -229 | -.11 |
| 1970 | 57 | 15 | 72 | 569 | -8 | 561 | -489 | -.21 |
| 1971 | 290 | 22 | 312 | 624 | 3 | 627 | -315 | -.12 |
| 1972 | 481 | -3 | 478 | 658 | -27 | 631 | -153 | -.05 |
| 1973 | 746 | -7 | 739 | 766 | 27 | 793 | -54 | -.02 |
| 1974 | 1,272 | -5 | 1,267 | 1,045 | -28 | 1,017 | 250 | .06 |
| 1975 | 1,424 | 67 | 1,491 | 1,225 | 4 | 1,229 | 262 | .05 |
| 1976 | 1,219 | 105 | 1,324 | 1,400 | -37 | 1,363 | -39 | -.01 |
| 1977 | 2,170 | 91 | 2,261 | 1,725 | 0 | 1,725 | 536 | .07 |
| 1978 | 3,786 | 47 | 3,833 | 2,195 | 38 | 2,233 | 1,600 | .18 |
| 1979 | 4,880 | 2 | 4,882 | 2,549 | 121 | 2,670 | 2,212 | .21 |
| 1980 | 4,657 | 0 | 4,657 | 3,042 | 188 | 3,230 | 1,427 | .11 |
| 1981 | 3,801 | 0 | 3,801 | 3,424 | 46 | 3,470 | 331 | .02 |
| 1982 | 5,534 | 1 | 5,535 | 3,820 | 60 | 3,880 | 1,655 | .09 |
| Projected: | | | | | | | | |
| Alternative A: | | | | | | | | |
| 1983 | 6,537 | 0 | 6,537 | 4,488 | 60 | 4,548 | 1,989 | .09 |
| December 31, 1983 | 6,771 | 0 | 6,771 | 4,922 | 76 | 4,998 | 1,773 | .08 |
| Alternative B: | | | | | | | | |
| 1983 | 6,535 | 0 | 6,535 | 4,489 | 60 | 4,549 | 1,986 | .09 |
| December 31, 1983 | 6,767 | 0 | 6,767 | 4,924 | 76 | 5,000 | 1,767 | .08 |

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

## 4. SENSITIVITY TESTING

Some of the assumptions underlying the projections 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 December 1983 (the period through which financing has been established), reaching a level of 17 percent of the following year's incurred expenditures. If these low growth rates were actually to materialize, then subsequent financing rates could be adjusted downward in order to lower the excess of assets over liabilities to more appropriate levels. Under the high cost assumptions, trust fund liabilities would exceed assets by the end of December 1983, reaching a level of 1 percent of the following year's incurred expenditures. If these high growth rates were to occur, the subsequent financing rates would have to be adjusted upward in order to generate more appropriate levels for the excess of assets over liabilities.

Table 9.--ACTUARIAL STATUS OF THE SMI TRUST FUND UNDER THREE SETS OF ASSUMPTIONS FOR FINANCING PERIODS THROUGH DECEMBER 31, 1983

| | This Projection | | | Low Cost Projection | | | High Cost Projection | | |
|---|---|---|---|---|---|---|---|---|---|
| | 12-month periods ending June 30, | | | 12-month periods ending June 30, | | | 12-month periods ending June 30, | | |
| | 1982 | 1983 | 1984 | 1982 | 1983 | 1984 | 1982 | 1983 | 1984 |
| Projection factors (in percent): 1/ | | | | | | | | | |
| Physicians' fees 2/ | | | | | | | | | |
| Aged | 10.8 | 9.6 | 6.9 | 10.3 | 9.1 | 6.4 | 11.3 | 10.1 | 7.4 |
| Disabled | 10.8 | 9.6 | 6.9 | 10.3 | 9.1 | 6.4 | 11.3 | 10.1 | 7.4 |
| Utilization of physicians' services 3/ | | | | | | | | | |
| Aged | 10.8 | 8.1 | 7.2 | 9.8 | 6.1 | 5.2 | 11.8 | 10.1 | 9.2 |
| Disabled | 15.2 | 11.9 | 10.4 | 13.2 | 6.9 | 5.7 | 17.2 | 16.9 | 15.4 |
| Outpatient hospital services per enrollee | | | | | | | | | |
| Aged | 15.0 | 14.9 | 13.0 | 12.0 | 7.9 | 3.0 | 18.0 | 21.9 | 23.0 |
| Disabled | 41.0 | 30.3 | 22.0 | 33.0 | 20.3 | 12.0 | 49.0 | 40.3 | 32.0 |
| | Financing period | | | Financing period | | | Financing period | | |
| | As of June 30, 1982 | As of June 30, 1983 | As of Dec. 31, 1983 | As of June 30, 1982 | As of June 30, 1983 | As of Dec. 31, 1983 | As of June 30, 1982 | As of June 30, 1983 | As of Dec. 31, 1983 |
| Actuarial status (in millions): | | | | | | | | | |
| Assets | $5,535 | $6,535 | $6,767 | $5,535 | $7,216 | $7,846 | $5,535 | $5,823 | $5,619 |
| Liabilities | 3,880 | 4,549 | 5,000 | 3,649 | 4,211 | 4,256 | 4,109 | 4,887 | 5,767 |
| Assets less liabilities | $1,655 | $1,986 | $1,767 | $1,886 | $3,005 | $3,590 | $1,426 | $ 936 | $ -148 |
| Ratio of assets less liabilities to expenditures (in percent) 4/ | 9.0 | 9.4 | 7.8 | 10.8 | 15.4 | 17.0 | 7.5 | 4.1 | -0.6 |

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

2/ As recognized for payment under the program.

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

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

## CONCLUSION

The financing of the supplementary medical insurance program has been established through December 1983, by the setting of standard monthly premium rates (paid by or on behalf of each enrollee) of $12.20 for the year ending June 1983 and $12.20 for the 6-month period ending December 1983 and of actuarial rates which determine the amount to be contributed from general revenue on behalf of each enrollee.

Under both sets of intermediate assumptions used in this report, income, composed of premiums paid by the participants, general revenue contributions and interest earned by the trust fund, is projected to exceed disbursements during FY 1983 and FY 1984. As a result, the assets in the trust fund, on a cash basis, are projected to increase from $5.8 billion at the end of fiscal year 1982 to an estimated $6.5 billion at the end of fiscal year 1983 and then to increase to an estimated $7.6 billion at the end of fiscal year 1984.

Program assets exceeded liabilities by approximately $1,655 million at the end of June 1982 representing 9.0 percent of the projected incurred expenditures for the following 12-month period. Financing for the 12-month period ending June 30, 1983 was established to maintain assets at the same level relative to program expenditures. While the excess of assets over liabilities is projected to increase in the aggregate to $1,989 million under alternative A and to $1,986 million under alternative B, this excess represents 9.4 percent of the projected incurred expenditures for the following 12-month period. The financing for the 6-month period ending

December 31, 1983 reduces this excess to a more appropriate level relative to the growth in program expenditures. Assets are projected to exceed liabilities by $1,773 million under alternative A and by $1,767 million under alternative B representing 7.8 percent of the projected incurred expenditures. Under more pessimistic assumptions as to cost increases, assets based on financing already established will be insufficient to cover outstanding liabilities. However, the trust fund should remain positive allowing claims to be paid. Hence, the financing established through December 1983 is sufficient to cover projected benefit and administrative costs incurred through that time period and to maintain 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. 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, 1981, for this report) and projecting these charges through the estimating period. The per enrollee charges are then converted to reimbursement amounts by subtracting the per enrollee values of the deductible and coinsurance. Aggregate reimbursement amounts are calculated by multiplying the per enrollee reimbursement amounts by the projected enrollment. In order to estimate cash disbursements, an allowance is made for the delay between receipt of service and payment therefor.

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

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*Prepared by the Division of Medicare Cost Estimates, Bureau of Data Management and Strategy, Health Care Financing Administration

b. Establishing a Projection Base:

(1) Physician Services:

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

Payment records for 0.1 percent of aged beneficiaries and 1.0 percent of disabled beneficiaries are tabulated by date of service, thus providing a data base which is constructed on an incurred basis. Certain minor adjustments are made to the tabulated sample data to correct for biases and random fluctuation inherent in the sampling process. Having the data on an incurred basis is necessary to meet the statutory requirement that the program be financed on this basis; it also makes possible a comparison of program experience with non-program data sources.

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

(2) Institutional and Other Services:

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

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

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

Group practice prepayment plans are reimbursed directly by the Health Care Financing Administration on a reasonable cost basis. Comprehensive data are available for these payments only on a cash basis, and certain

approximations must be made to allocate expenses to the period when services were rendered.

(3) Summary of Historical Data:

Table A1 summarizes the incurred reimbursement amounts per enrollee for the various services for each of the 12-month periods ending June 30, through 1981. Also shown are average enrollment figures for these years. In order to analyze the historical trends in prices and use of services, these reimbursement amounts are converted to the reasonable charges or reasonable costs on which reimbursement was based. This process is necessary largely because the fixed deductible becomes a smaller percentage of charges each year and thus causes reimbursement to rise faster than charges or costs. Table A2 shows the reasonable charges or costs per enrollee corresponding to the reimbursement values shown in table A1.

c. Per Enrollee Increases

(1) Physician Services:

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

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

Table A1.--INCURRED REIMBURSEMENT AMOUNTS PER ENROLLEE: HISTORICAL

| Year ending June 30, | Average enrollment (millions) | All services | Physician | Inpatient radiology and pathology* | Outpatient hospital | Home health agency | Group practice prepayment plan | Independent lab |
|---|---|---|---|---|---|---|---|---|
| Aged: | | | | | | | | |
| 1967 | 17.750 | $62.40 | $59.02 | | $1.41 | $ .79 | $ .88 | $ .30 |
| 1968 | 18.038 | 80.04 | 72.56 | $1.89 | 2.40 | 1.49 | 1.35 | .35 |
| 1969 | 18.833 | 93.72 | 79.06 | 6.57 | 4.23 | 1.92 | 1.54 | .40 |
| 1970 | 19.312 | 99.90 | 82.84 | 7.14 | 5.93 | 2.00 | 1.51 | .48 |
| 1971 | 19.664 | 106.26 | 87.80 | 7.21 | 7.56 | 1.68 | 1.40 | .61 |
| 1972 | 20.043 | 114.22 | 94.82 | 6.77 | 8.58 | 1.61 | 1.66 | .78 |
| 1973 | 20.428 | 122.38 | 100.95 | 6.99 | 9.45 | 2.17 | 1.88 | .94 |
| 1974 | 20.988 | 134.37 | 109.96 | 7.44 | 11.42 | 2.03 | 2.31 | 1.21 |
| 1975 | 21.504 | 160.20 | 127.48 | 8.72 | 15.48 | 3.84 | 3.04 | 1.64 |
| 1976 | 22.089 | 188.55 | 145.30 | 10.89 | 21.30 | 5.21 | 3.83 | 2.02 |
| 1977 | 22.605 | 221.31 | 167.00 | 12.21 | 28.72 | 6.54 | 4.36 | 2.48 |
| 1978 | 23.133 | 254.21 | 192.23 | 14.75 | 33.42 | 6.82 | 4.07 | 2.92 |
| 1979 | 23.693 | 289.31 | 217.32 | 16.33 | 40.59 | 6.87 | 4.89 | 3.31 |
| 1980 | 24.287 | 340.63 | 256.10 | 18.70 | 47.05 | 7.73 | 7.02 | 4.03 |
| 1981 | 24.826 | 405.04 | 301.96 | 22.92 | 57.07 | 8.58 | 9.10 | 5.41 |
| Disabled (excluding ESRD): | | | | | | | | |
| 1974 | 1.636 | 117.60 | 90.13 | 7.54 | 13.92 | 3.46 | 1.89 | .66 |
| 1975 | 1.813 | 150.14 | 117.42 | 8.40 | 17.37 | 3.59 | 2.30 | 1.06 |
| 1976 | 2.015 | 179.56 | 138.49 | 10.03 | 21.74 | 5.14 | 2.69 | 1.47 |
| 1977 | 2.229 | 220.98 | 161.86 | 13.02 | 36.49 | 4.79 | 2.82 | 2.00 |
| 1978 | 2.419 | 256.58 | 188.87 | 14.22 | 42.85 | 5.54 | 2.50 | 2.60 |
| 1979 | 2.560 | 301.74 | 223.65 | 17.08 | 50.63 | 5.13 | 2.07 | 3.18 |
| 1980 | 2.637 | 363.38 | 268.45 | 19.79 | 60.78 | 6.21 | 4.32 | 3.83 |
| 1981 | 2.683 | 431.89 | 314.86 | 23.13 | 76.24 | 7.62 | 5.28 | 4.76 |

*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* | Outpatient hospital | Home health agency | Group practice prepayment plan | Independent lab |
|---|---|---|---|---|---|---|---|---|
| Aged: | | | | | | | | |
| 1967 | 17.750 | $109.36 | $103.44 | | $2.47 | $1.38 | $1.55 | $.52 |
| 1968 | 18.038 | 128.13 | 117.21 | $1.89 | 3.88 | 2.41 | 2.18 | .56 |
| 1969 | 18.833 | 145.58 | 126.11 | 6.57 | 6.74 | 3.06 | 2.46 | .64 |
| 1970 | 19.312 | 154.02 | 131.18 | 7.14 | 9.39 | 3.16 | 2.39 | .76 |
| 1971 | 19.664 | 162.57 | 137.72 | 7.21 | 11.86 | 2.63 | 2.20 | .95 |
| 1972 | 20.043 | 173.14 | 146.82 | 6.77 | 13.28 | 2.49 | 2.57 | 1.21 |
| 1973 | 20.428 | 186.56 | 157.43 | 6.99 | 14.73 | 3.01 | 2.93 | 1.47 |
| 1974 | 20.988 | 204.61 | 171.37 | 7.44 | 17.79 | 2.53 | 3.60 | 1.88 |
| 1975 | 21.504 | 237.06 | 193.14 | 8.72 | 23.46 | 4.65 | 4.60 | 2.49 |
| 1976 | 22.089 | 272.55 | 215.26 | 10.89 | 31.55 | 6.17 | 5.68 | 3.00 |
| 1977 | 22.605 | 313.89 | 242.46 | 12.21 | 41.69 | 7.60 | 6.33 | 3.60 |
| 1978 | 23.133 | 355.04 | 274.75 | 14.75 | 47.76 | 7.80 | 5.81 | 4.17 |
| 1979 | 23.693 | 399.35 | 306.46 | 16.33 | 57.24 | 7.75 | 6.90 | 4.67 |
| 1980 | 24.287 | 463.70 | 355.71 | 18.70 | 65.35 | 8.59 | 9.75 | 5.60 |
| 1981 | 24.826 | 543.45 | 413.20 | 22.92 | 78.09 | 9.39 | 12.45 | 7.40 |
| Disabled (excluding ESRD): | | | | | | | | |
| 1974 | 1.636 | 174.36 | 137.48 | 7.54 | 21.23 | 4.22 | 2.89 | 1.00 |
| 1975 | 1.813 | 215.54 | 172.47 | 8.40 | 25.51 | 4.22 | 3.38 | 1.56 |
| 1976 | 2.015 | 251.94 | 198.83 | 10.03 | 31.21 | 5.90 | 3.86 | 2.11 |
| 1977 | 2.229 | 305.58 | 228.75 | 13.02 | 51.57 | 5.42 | 3.99 | 2.83 |
| 1978 | 2.419 | 351.50 | 264.04 | 14.22 | 59.90 | 6.20 | 3.50 | 3.64 |
| 1979 | 2.560 | 408.25 | 308.45 | 17.08 | 69.83 | 5.66 | 2.85 | 4.38 |
| 1980 | 2.637 | 485.11 | 364.88 | 19.79 | 82.61 | 6.75 | 5.87 | 5.21 |
| 1981 | 2.683 | 571.14 | 423.71 | 23.13 | 102.59 | 8.20 | 7.10 | 6.41 |

*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 A3.--COMPONENTS OF INCREASES IN TOTAL RECOGNIZED CHARGES PER ENROLLEE FOR PHYSICIAN SERVICES: HISTORICAL
(In percent)

| Year ending June 30, | Increase Due to Price Changes | | | | Increase Due to Residual Factors | | | |
|---|---|---|---|---|---|---|---|---|
| | Increase in physician fee component of CPI | Reduction due to fee screens: Cumulative effect | Reduction due to fee screens: Yearly changes | Net increase in reasonable charges | Gross residual factors | Effect of denials | Net residual factors | Total increase in recognized charges per enrollee |
| Aged: | | | | | | | | |
| 1967 | 7.6 | -2.6 | | | | | | |
| 1968 | 5.9 | -3.6 | -0.7 | 5.2 | 9.5 | -1.4 | 8.1 | 13.3 |
| 1969 | 6.2 | -5.0 | -1.4 | 4.8 | 3.2 | -0.4 | 2.8 | 7.6 |
| 1970 | 6.7 | -7.5 | -2.8 | 3.9 | 3.2 | -3.1 | 0.1 | 4.0 |
| 1971 | 7.5 | -10.1 | -3.0 | 4.5 | 3.7 | -3.2 | 0.5 | 5.0 |
| 1972 | 5.2 | -11.2 | -1.2 | 4.0 | 2.2 | 0.4 | 2.6 | 6.6 |
| 1973 | 2.6 | -11.7 | -0.5 | 2.1 | 5.7 | -0.6 | 5.1 | 7.2 |
| 1974 | 5.0 | -13.2 | -1.6 | 3.4 | 6.1 | -0.6 | 5.5 | 8.9 |
| 1975 | 12.8 | -16.2 | -3.6 | 9.2 | 3.8 | -0.3 | 3.5 | 12.7 |
| 1976 | 11.4 | -18.6 | -2.9 | 8.5 | 2.9 | 0.1 | 3.0 | 11.5 |
| 1977 | 10.2 | -19.5 | -1.0 | 9.2 | 3.3 | 0.1 | 3.4 | 12.6 |
| 1978 | 8.9 | -19.4 | 0.5 | 9.4 | 3.8 | 0.1 | 3.9 | 13.3 |
| 1979 | 8.6 | -20.0 | -0.6 | 8.0 | 3.8 | -0.3 | 3.5 | 11.5 |
| 1980 | 11.5 | -22.1 | -2.4 | 9.1 | 6.8 | 0.1 | 6.9 | 16.0 |
| 1981 | 11.1 | -24.5 | -2.7 | 8.4 | 7.1 | 0.7 | 7.8 | 16.2 |
| Disabled (excluding ESRD): | | | | | | | | |
| 1974 | 5.0 | -13.2 | | | | | | |
| 1975 | 12.8 | -16.2 | -2.6 | 10.2 | 15.5 | -0.3 | 15.2 | 25.4 |
| 1976 | 11.4 | -18.6 | -2.6 | 8.8 | 6.4 | 0.1 | 6.5 | 15.3 |
| 1977 | 10.2 | -19.5 | -0.7 | 9.5 | 5.5 | 0.1 | 5.6 | 15.1 |
| 1978 | 8.9 | -19.4 | 0.6 | 9.5 | 5.8 | 0.1 | 5.9 | 15.4 |
| 1979 | 8.6 | -20.0 | -0.2 | 8.4 | 8.7 | -0.3 | 8.4 | 16.8 |
| 1980 | 11.5 | -22.1 | -2.2 | 9.3 | 8.9 | 0.1 | 9.0 | 18.3 |
| 1981 | 11.1 | -24.5 | -2.8 | 8.3 | 7.1 | 0.7 | 7.8 | 16.1 |

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" charges for the locality. The prevailing charge is defined as the 75th percentile of customary charges for a particular service in a particular locality. Since July 1, 1975, the rate of increase in prevailing charges has been limited further by the application of an "economic index." The customary and prevailing charge limits maintained by the carriers are called "fee screens." Reasonable charges are charges on which reimbursement is based, after they have been reduced by the fee screens.

The average reduction in submitted fees has increased almost every year due both to administrative actions and to differentials in the rate of increase in fees between the calendar year in which the fee screens are established and the July to June period in which the screens are applied. The result is that the net increase in per enrollee charges due to price changes (i.e., the increase in fee levels recognized for reimbursement purposes) has been less than the increase in submitted fees. The second column of table A3 shows the reduction of charges due to the impact of the fee screen operation to date. The year-to-year changes in this impact are shown in the third column.

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

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

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

Projected increases in total recognized charges per enrollee are shown in table A4. Column 1 of table A4 shows the projected average increase in customary charges in each of the 12-month periods ending June 30, 1982 through 1986. 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 1980 through 1984, respec-

Table A4.--COMPONENTS OF INCREASES IN TOTAL RECOGNIZED CHARGES PER ENROLLEE FOR PHYSICIAN SERVICES: PROJECTED
(In percent)

| Year ending June 30, | Increase before effect of economic index | Reduction due to economic index | Net increase in reasonable charges | Gross residual factors | Effects of denials | Net residual factors | Total increase in recognized charges per enrollee |
|---|---|---|---|---|---|---|---|
| **Alternative A:** | | | | | | | |
| **Aged:** | | | | | | | |
| 1982 | 11.7 | -0.9 | 10.8 | 11.9 | 0.0 | 11.9 | 22.7 |
| 1983 | 10.6 | -1.0 | 9.6 | 8.8 | 0.0 | 8.8 | 18.4 |
| 1984 | 8.8 | -1.9 | 6.9 | 7.7 | 0.0 | 7.7 | 14.6 |
| 1985 | 7.1 | -1.6 | 5.5 | 7.3 | 0.0 | 7.3 | 12.8 |
| 1986 | 5.4 | -0.2 | 5.2 | 6.2 | 0.0 | 6.2 | 11.4 |
| **Disabled (excluding ESRD):** | | | | | | | |
| 1982 | 11.7 | -0.9 | 10.8 | 16.8 | 0.0 | 16.8 | 27.6 |
| 1983 | 10.6 | -1.0 | 9.6 | 13.0 | 0.0 | 13.0 | 22.6 |
| 1984 | 8.8 | -1.9 | 6.9 | 11.1 | 0.0 | 11.1 | 18.0 |
| 1985 | 7.1 | -1.6 | 5.5 | 10.4 | 0.0 | 10.4 | 15.9 |
| 1986 | 5.4 | -0.2 | 5.2 | 9.5 | 0.0 | 9.5 | 14.7 |
| **Alternative B:** | | | | | | | |
| **Aged:** | | | | | | | |
| 1982 | 11.7 | -0.9 | 10.8 | 11.9 | 0.0 | 11.9 | 22.7 |
| 1983 | 10.6 | -1.0 | 9.6 | 8.8 | 0.0 | 8.8 | 18.4 |
| 1984 | 8.8 | -1.9 | 6.9 | 7.7 | 0.0 | 7.7 | 14.6 |
| 1985 | 7.4 | -1.7 | 5.7 | 7.3 | 0.0 | 7.3 | 13.0 |
| 1986 | 6.2 | -0.4 | 5.8 | 6.2 | 0.0 | 6.2 | 12.0 |
| **Disabled (excluding ESRD):** | | | | | | | |
| 1982 | 11.7 | -0.9 | 10.8 | 16.8 | 0.0 | 16.8 | 27.6 |
| 1983 | 10.6 | -1.0 | 9.6 | 13.0 | 0.0 | 13.0 | 22.6 |
| 1984 | 8.8 | -1.9 | 6.9 | 11.1 | 0.0 | 11.1 | 18.0 |
| 1985 | 7.4 | -1.7 | 5.7 | 10.5 | 0.0 | 10.5 | 16.2 |
| 1986 | 6.2 | -0.4 | 5.8 | 9.5 | 0.0 | 9.5 | 15.3 |

tively. In principle, further adjustments should be made for the year-to-year variations created by the process of selecting the 75th percentile of customary charges for each service in each locality to establish prevailing charges and for the fact that, of necessity, some fees are not screened in exactly the manner described (e.g., when new categories of services arise for which there is no historical data base). The impact on year-to-year increases in reasonable charges of these two factors is treated as negligible (although, of course, they may have some effect on the absolute level of fees). The effects of the economic index on the average charge increase is shown in column 2. The projected net increase in reasonable charges is shown in column 3; this compares with the corresponding historical data shown in column 4 of table A3.

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

(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. Because these series provide only a rough indication of future trends in costs, identical series of increase factors are used for alternative A and alternative B.

Table A5.--INCREASES IN RECOGNIZED CHARGES AND COSTS PER ENROLLEE FOR INSTITUTIONAL AND OTHER SERVICES
(In percent)

| Year Ending June 30, | Inpatient radiology and pathology | Outpatient hospital | Home health agency | Group practice prepayment plan | Independent lab |
|---|---|---|---|---|---|
| **Aged:** | | | | | |
| **Historical:** | | | | | |
| 1968 | | 57.1 | 74.6 | 40.6 | 7.7 |
| 1969 | -13.1 * | 73.7 | 27.0 | 12.8 | 14.3 |
| 1970 | 8.7 | 39.3 | 3.3 | -2.8 | 18.7 |
| 1971 | 1.0 | 26.3 | -16.8 | -7.9 | 25.0 |
| 1972 | -6.1 | 12.0 | -5.3 | 16.8 | 27.4 |
| 1973 | 3.2 | 10.9 | 20.9 | 14.0 | 21.5 |
| 1974 | 6.4 | 20.8 | -15.9 | 22.9 | 27.9 |
| 1975 | 17.2 | 31.9 | 83.8 | 27.8 | 32.4 |
| 1976 | 24.9 | 34.5 | 32.7 | 23.5 | 20.5 |
| 1977 | 12.1 | 32.1 | 23.2 | 11.4 | 20.0 |
| 1978 | 20.8 | 14.6 | 2.6 | -8.2 | 15.8 |
| 1979 | 10.7 | 19.8 | -0.6 | 18.8 | 12.0 |
| 1980 | 14.5 | 14.2 | 10.8 | 41.3 | 19.9 |
| 1981 | 22.6 | 19.5 | 9.3 | 27.7 | 32.1 |
| **Projected:** | | | | | |
| 1982 | 6.0 | 15.0 | -94.4 | 25.0 | 5.0 |
| 1983 | 12.8 | 14.9 | -62.3 | 25.0 | 14.8 |
| 1984 | -0.2 | 13.0 | 10.0 | 25.0 | -7.2 |
| 1985 | 15.0 | 13.7 | 10.0 | 20.0 | 0.8 |
| 1986 | 14.7 | 14.4 | 10.0 | 20.0 | 10.4 |
| **Disabled (excluding ESRD):** | | | | | |
| **Historical:** | | | | | |
| 1975 | 11.4 | 20.2 | 0.0 | 17.0 | 56.0 |
| 1976 | 19.4 | 22.3 | 39.8 | 14.2 | 35.3 |
| 1977 | 29.8 | 65.2 | -8.1 | 3.4 | 34.1 |
| 1978 | 9.2 | 16.2 | 14.4 | -12.3 | 28.6 |
| 1979 | 20.1 | 16.6 | -8.7 | -16.6 | 20.3 |
| 1980 | 15.9 | 18.3 | 19.3 | 106.0 | 18.9 |
| 1981 | 16.9 | 24.2 | 21.5 | 21.0 | 23.0 |
| **Projected:** | | | | | |
| 1982 | 15.0 | 41.0 | -100.0 | 25.0 | 5.0 |
| 1983 | 13.4 | 30.3 | 0.0 | 25.0 | 15.2 |
| 1984 | -2.1 | 22.0 | 0.0 | 25.0 | 0.2 |
| 1985 | 16.0 | 18.5 | 0.0 | 20.0 | -6.4 |
| 1986 | 13.3 | 19.0 | 0.0 | 20.0 | 14.0 |

* Percentage change over prior year annualized value.

d. Projected Charges and Costs:

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

2. ESTIMATES FOR PERSONS SUFFERING FROM END STAGE RENAL DISEASE

Certain persons suffering from end stage renal disease (ESRD) have been eligible to enroll for SMI coverage since July 1973 (under Section 299I 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 SMI ESRD services under Medicare will increase at an average of 4.3 percent per year under alternative A and 4.6 percent per year under alternative B over the projection period (July 1, 1981 through June 30, 1986). The estimates also assume a continued rapid increase in enrollment. The historical and projected enrollment and costs are shown in table A8.

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

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 |
|---|---|---|---|---|---|---|---|
| Alternative A: | | | | | | | |
| Aged: | | | | | | | |
| 1982 | $ 645.09 | $507.13 | $24.30 | $ 89.80 | $ .53 | $15.56 | $ 7.77 |
| 1983 | 759.57 | 600.44 | 27.42 | 103.14 | .20 | 19.45 | 8.92 |
| 1984 | 864.69 | 687.98 | 27.37 | 116.53 | .22 | 24.31 | 8.28 |
| 1985 | 977.42 | 775.71 | 31.47 | 132.48 | .24 | 29.17 | 8.35 |
| 1986 | 1,096.05 | 863.90 | 36.09 | 151.58 | .26 | 35.00 | 9.22 |
| Disabled (excluding ESRD): | | | | | | | |
| 1982 | 727.54 | 540.68 | 26.60 | 144.65 | .00 | 8.88 | 6.73 |
| 1983 | 900.49 | 663.07 | 30.15 | 188.42 | .00 | 11.10 | 7.75 |
| 1984 | 1,063.72 | 782.73 | 29.52 | 229.83 | .00 | 13.88 | 7.76 |
| 1985 | 1,237.87 | 907.39 | 34.25 | 272.30 | .00 | 16.66 | 7.27 |
| 1986 | 1,431.67 | 1,040.47 | 38.80 | 324.12 | .00 | 19.99 | 8.29 |
| Alternative B: | | | | | | | |
| Aged: | | | | | | | |
| 1982 | 645.09 | 507.13 | 24.30 | 89.80 | .53 | 15.56 | 7.77 |
| 1983 | 759.57 | 600.44 | 27.42 | 103.14 | .20 | 19.45 | 8.92 |
| 1984 | 864.69 | 687.98 | 27.37 | 116.53 | .22 | 24.31 | 8.28 |
| 1985 | 979.34 | 777.63 | 31.47 | 132.48 | .24 | 29.17 | 8.35 |
| 1986 | 1,102.80 | 870.65 | 36.09 | 151.58 | .26 | 35.00 | 9.22 |
| Disabled (excluding ESRD): | | | | | | | |
| 1982 | 727.54 | 540.68 | 26.60 | 144.65 | .00 | 8.88 | 6.73 |
| 1983 | 900.49 | 663.07 | 30.15 | 188.42 | .00 | 11.10 | 7.75 |
| 1984 | 1,063.72 | 782.73 | 29.52 | 229.83 | .00 | 13.88 | 7.76 |
| 1985 | 1,240.11 | 909.63 | 34.25 | 272.30 | .00 | 16.66 | 7.27 |
| 1986 | 1,439.79 | 1,048.59 | 38.80 | 324.12 | .00 | 19.99 | 8.29 |

Table A7.--INCURRED REIMBURSEMENT AMOUNTS: PROJECTED

| Year ending June 30, | Average enrollment (millions) | Reimbursement amounts | |
|---|---|---|---|
| | | Per enrollee | Aggregate (millions) |
| Alternative A: | | | |
| Aged: | | | |
| 1982 | 25.363 | $ 476.55 | $12,087 |
| 1983 | 25.897 | 561.24 | 14,534 |
| 1984 | 26.440 | 643.76 | 17,021 |
| 1985 | 27.025 | 733.63 | 19,826 |
| 1986 | 27.646 | 828.41 | 22,902 |
| Disabled (excluding ESRD): | | | |
| 1982 | 2.682 | 546.89 | 1,467 |
| 1983 | 2.583 | 677.65 | 1,750 |
| 1984 | 2.514 | 806.08 | 2,026 |
| 1985 | 2.513 | 944.99 | 2,375 |
| 1986 | 2.482 | 1,099.56 | 2,729 |
| Alternative B: | | | |
| Aged: | | | |
| 1982 | 25.363 | 476.55 | 12,087 |
| 1983 | 25.897 | 561.24 | 14,534 |
| 1984 | 26.440 | 643.76 | 17,021 |
| 1985 | 27.025 | 735.18 | 19,868 |
| 1986 | 27.646 | 833.80 | 23,051 |
| Disabled (excluding ESRD): | | | |
| 1982 | 2.682 | 546.89 | 1,467 |
| 1983 | 2.583 | 677.65 | 1,750 |
| 1984 | 2.514 | 806.08 | 2,026 |
| 1985 | 2.513 | 946.88 | 2,380 |
| 1986 | 2.482 | 1,106.06 | 2,745 |

Table A8.--INCURRED REIMBURSEMENT AMOUNTS FOR END STAGE RENAL DISEASE

| Year ending June 30, | Disabled ESRD and ESRD only | | | ESRD only |
|---|---|---|---|---|
| | Average enrollment (thousands) | Reimbursement amounts Per enrollee | Aggregate (millions) | Reimbursement amounts Aggregate (millions) |
| Alternative A: | | | | |
| 1974 | 14 | $10,071 | $141 | $ 98 |
| 1975 | 21 | 10,857 | 228 | 155 |
| 1976 | 27 | 11,852 | 320 | 209 |
| 1977 | 31 | 13,516 | 419 | 267 |
| 1978 | 36 | 14,611 | 526 | 330 |
| 1979 | 41 | 15,756 | 646 | 399 |
| 1980 | 48 | 16,229 | 779 | 474 |
| 1981 | 53 | 17,472 | 926 | 557 |
| 1982 | 57 | 18,912 | 1,078 | 641 |
| 1983 | 61 | 19,557 | 1,193 | 701 |
| 1984 | 63 | 18,984 | 1,196 | 688 |
| 1985 | 65 | 19,138 | 1,244 | 703 |
| 1986 | 67 | 19,866 | 1,331 | 743 |
| Alternative B: | | | | |
| 1974 | 14 | 10,071 | 141 | 98 |
| 1975 | 21 | 10,857 | 228 | 155 |
| 1976 | 27 | 11,852 | 320 | 209 |
| 1977 | 31 | 13,516 | 419 | 267 |
| 1978 | 36 | 14,611 | 526 | 330 |
| 1979 | 41 | 15,756 | 646 | 399 |
| 1980 | 48 | 16,229 | 779 | 474 |
| 1981 | 53 | 17,472 | 926 | 557 |
| 1982 | 57 | 18,912 | 1,078 | 641 |
| 1983 | 61 | 19,590 | 1,195 | 702 |
| 1984 | 63 | 19,048 | 1,200 | 690 |
| 1985 | 65 | 19,308 | 1,255 | 709 |
| 1986 | 67 | 20,179 | 1,352 | 755 |

Table A9.--AGGREGATE REIMBURSEMENT AMOUNTS ON A CASH BASIS
(In millions)

| Fiscal year | Aged | Disabled (excluding ESRD) | Disabled ESRD and ESRD only | Total |
|---|---|---|---|---|
| Historical: | | | | |
| 1967 | $ 664 | | | $ 664 |
| 1968 | 1,390 | | | 1,390 |
| 1969 | 1,645 | | | 1,645 |
| 1970 | 1,979 | | | 1,979 |
| 1971 | 2,035 | | | 2,035 |
| 1972 | 2,255 | | | 2,255 |
| 1973 | 2,391 | | | 2,391 |
| 1974 | 2,652 | $ 132 | $ 90 | 2,874 |
| 1975 | 3,341 | 257 | 167 | 3,765 |
| 1976 | 4,074 | 339 | 259 | 4,672 |
| Interim* | 1,083 | 106 | 80 | 1,269 |
| 1977 | 4,992 | 494 | 381 | 5,867 |
| 1978 | 5,776 | 606 | 470 | 6,852 |
| 1979 | 6,903 | 762 | 594 | 8,259 |
| 1980 | 8,467 | 957 | 720 | 10,144 |
| 1981 | 10,326 | 1,171 | 848 | 12,345 |
| 1982 | 12,290 | 1,496 | 1,020 | 14,806 |
| Projected: | | | | |
| Alternative A: | | | | |
| 1983 | 14,646 | 1,757 | 1,134 | 17,537 |
| 1984 | 17,215 | 2,056 | 1,139 | 20,410 |
| 1985 | 20,027 | 2,396 | 1,198 | 23,621 |
| Alternative B: | | | | |
| 1983 | 14,646 | 1,757 | 1,134 | 17,537 |
| 1984 | 17,223 | 2,057 | 1,142 | 20,422 |
| 1985 | 20,085 | 2,403 | 1,207 | 23,695 |

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

reimbursement amounts on a cash basis and incurred reimbursement amounts results from the lag between the time of service and the time of payment.

4. ADMINISTRATIVE EXPENSE

The ratio of administrative expenses to benefit payments has been approximately 6 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.