APPENDICES

APPENDIX I. STATEMENT OF ACTUARIAL ASSUMPTIONS AND BASES EMPLOYED IN ARRIVING AT THE AMOUNT OF THE STANDARD PREMIUM RATE FOR THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM BEGINNING JULY 1972[1]

This is a statement of actuarial assumptions and bases employed in arriving at $5.80 as the amount of the standard monthly premium rate for the Supplementary Medical Insurance Program for the period July 1972 through June 1973.

The actuarial determination has been made on the basis of the actual operating experience under the program, projected through the year beginning July 1972. Virtually complete operating experience figures through June 30, 1971 are now available, as to the cash income and disbursements under the program, and some data is available for the early months of fiscal 1972. The premium rate, however, must be adequate to cover benefits and related administrative costs for all services performed in the period to which the premium rate is applicable. Experience on such a basis (hereafter called an "incurred" basis) is available for most components of the program through calendar 1970; that for the other components must be estimated.

ANALYSIS OF SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND

The balance on the SMI Trust Fund at the end of each of the last three fiscal years, the liability outstanding for benefits and related administrative costs for services performed prior to the end of that fiscal year but not yet paid for at the end of that fiscal year ("liability for incurred but unpaid services"), and the monthly premium rate in effect for each of these fiscal years are as follows:

Period ending June 30	Monthly premium rate	Fund at end of period (in millions)	Liability for incurred but unpaid services (in millions)
1969	$4.00	$378	$928
1970	4.00	57	823
1971	5.30	290	894

The liabilities outstanding on June 30, 1971, for incurred but unpaid services, are estimated to have been $894 million, while the balance in the trust fund on the same date amounted to $290 million. Due to past deficiencies in the premium rate, the fund on June 30, 1971, was about 32 percent of this liability.

It is expected that the trust fund balance will continue to increase during fiscal year 1972. As of October 31, 1971, the fund had almost reached $385 million. By the end of June 1972, the trust fund balance is estimated to be about $490 million, about 50 percent of the liability for incurred but unpaid services then outstanding.

ANALYSIS OF PAST EXPERIENCE

Estimates of the basic premium necessary to finance both benefit payments and administrative expenses are shown below, on both a cash and an incurred basis. Under the law, the premium rate must be set on an incurred basis. Cash figures must be adjusted for the estimated increase in liability for incurred but unpaid services. Monthly premium rates on both the cash and incurred bases are compared for the three most recent fiscal years with the premium rate actually charged.

[1] This statement was published in the Federal Register for January 5, 1972 (Vol. 37, pp. 103-4)

Fiscal year ending June 30	Premium rate charged	Premium rate required for benefits and administrative expenses	
		Cash basis	Incurred basis
1969	$4.00	$4.07	$4.23
1970	4.00	4.47	4.56
1971	5.30	4.82	4.89

Basic Estimates for Future Experience on an Incurred Basis

In estimating the cost of the program for July 1972 through June 1973, it is first necessary to project incurred results for fiscal year 1972, and then to continue the projection for one more year. The assumptions used for the purpose of these projections are shown below:

AVERAGE INCREASE ASSUMED OVER PREVIOUS YEAR

[In percent]

Calendar year	Physicians' services		Institutional services	
	Fees[1]	Number and mix[2]	Unit costs	Number and mix[2]
1971	6.2	2	7.1	3.9
1972	2.5	2	4.9	4.7
1973	2.5	2	4.7	5.1

[1] As charged by physicians.
[2] Increase in the number of services received per capita or greater relative use of more expensive services.

The Price Commission has promulgated a guideline for physicians' services which on the average limits the increase in the price a physician receives for any service to 2½ percent per year. The Price Commission has also determined that the reasonable charge for any procedure for any physician will also be increased no more than 2½ percent per year.

Administrative expenses in fiscal 1973 are estimated to be 13 percent of benefits paid, reflecting a moderate trend to higher administrative costs per dollar of benefits paid.

On the basis of the foregoing assumptions it is now estimated that the monthly basic premium rate necessary to cover both benefit payments and administrative expenses on an incurred basis is $5.40 for fiscal year 1972, and $5.81 for fiscal year 1973. An allowance was included for the average cost of influenza or other epidemics, none of which occurred in the base period.

The $5.81 figure for fiscal year 1973 is rounded down to $5.80.

CONTINGENCY MARGIN

There is a $0.01 deficiency arising from the rounding indicated above. The interest earnings on the trust fund (estimated to be the equivalent of about $0.06 in terms of the premium rate) are available to make up the deficiency and to provide a very small margin for contingencies.

RECOMMENDATION AND SUMMARY

Based on all available evidence and analysis, the standard premium rate for fiscal 1973 should be promulgated at $5.80 per month, up $0.20 (or about 3½ percent) from the current $5.60 rate. This recommended rate contains an estimated $0.05 margin for contingencies, when interest earnings are taken into account.

The explanation of the $0.20 increase in the standard monthly premium rate for the new premium period can be summarized as follows:

(a) The level of physicians' fees recognized by the program is assumed to be higher in the new period, as physicians' fees increase modestly under wage-price guidelines—about $0.14.

(b) Use of more physicians' services per capita and some shift toward more expensive services—about $0.21.

(c) Increase in cost, quality, and utilization of the institutional services covered by the program—about $0.06.

These added costs would require an increase of $0.41 in the premium rate. However, the more favorable experience now projected for fiscal 1972 than was previously assumed (18 cents) and a small difference (3 cents) in the effects of rounding the premium to the nearest $0.10, hold the increase in premium to $0.20.

APPENDIX II. STATEMENT OF ACTUARIAL ASSUMPTIONS, METHODOLOGY, AND DETAILS OF COST ESTIMATES

(Prepared by Office of the Actuary—Social Security Administration)

The basic assumptions and methodology used to prepare the actuarial cost estimates are described in this appendix, accompanied by more detailed data from these estimates.

(A) BASIS OF FINANCING THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM: INCURRED BASIS OF PROGRAM, CASH BASIS OF BUDGET

The premium rate for the supplementary medical insurance program for any period is based on the services performed in that period, regardless of when paid; that is, on the incurred costs rather than the cash expenditures in the period. Consequently, premium rates for any future period must be based on projections of the liability that will accrue during the period for benefits and administrative costs related to services performed in that period.

Budget estimates, however, are for the cash disbursements that will be made from the supplementary medical insurance trust fund by the Treasury. Such disbursements are based on amounts transferred under "letters of credit" [1] from the bank accounts of the Treasury to those of the various carriers and intermediaries [2], and in the case of direct payments to certain providers, on actual Treasury disbursements authorized by the Social Security Administration. The actual cash payments to beneficiaries and providers must necessarily lag a few days behind such transfers (except to the extent that some carriers utilize the float on the checks disbursed, so as to minimize the bank balances). Payment for most supplementary medical insurance services will lag behind the incurred liability due to the time required for providers or beneficiaries to submit the claims and for the intermediaries and carriers to adjudicate and pay them. In addition, there is a lag in the settlements with institutions for the differences between final and interim payments. Such differences have resulted in payment of substantial additional reimbursements to these institutions. Only in the case of payments to group practice plans who have elected to deal directly with the Social Security Administration are payments made on a relatively current basis.

The financing of the program is set only for short periods into the future; consequently, no long-range projections of the experience of the program are prepared. The premium rate for each fiscal year period is promulgated before the January 1, that precedes the beginning of such year. Under normal circumstances, the cash income should exceed the cash disbursements in the period for which the experience is projected, since the lag in the payment of benefits results in a cash surplus which provides some margin to ensure enough assets on hand at any time to pay benefits should the premium prove inadequate by a moderate amount.

(B) METHODOLOGY USED IN PROJECTING INCURRED AND CASH EXPERIENCE

The estimates of future cash expenditures under the program are projected using two distinct approaches. First the estimates of future accrued experience are adjusted for the lag in payments to produce a cash series. Secondly, the cash actually paid in the most recent year is projected to future years allowing indirectly for the effects of the various actuarial factors discussed below. This procedure provides for a check on the general level of estimates prepared. Reasonable agreement between the two methods of estimating future costs on a cash basis was achieved.

The accrued cost financing of the program requires that estimates of future accrued experience be made. In fact, the principal economic variables involved in

---

[1] Letters of credit are a financial device that permit intermediaries to minimize idle cash balances, so that cash is not transferred from the Treasury accounts until actually needed.

[2] The intermediaries who assist the Social Security Administration in paying claims are referred to as "intermediaries" if reimbursement is to be made on the basis of "reasonable costs" i.e., to institutions and "carriers" if reimbursement is made on the basis of "reasonable charges."

such projections—such as price increases, increases due to the greater use of more complex and expensive procedures or to more use of specialists, changes in the level of utilization, effects of influenza and other epidemics, changes in operating philosophies of institutions or physicians, etc.—are in general related to the services at the time they are performed and not to the period when payment is made. The assumptions as to the future level of these economic variables are chosen on a "most probable" basis in order to produce "maximum-likelihood" estimates of future accrued experience. This procedure involves applying these price and utilization factors to estimated per capita reasonable charges for some recent calendar base year. The per capita reasonable charges are developed for each principal source of data (these components are discussed in detail later). The per capita reimbursement amounts are then computed by deducting from the reasonable charges the derived values for cost sharing (namely the $50 deductible and 20 percent coinsurance payments made by the beneficiary). The expected total accrued benefits for any year is computed as the product of the per capita reimbursement amount and the estimated exposure (average enrollment) in that year. Total administrative expenses (related to services performed) are projected as a percentage of accrued benefits. The results of the projection of accrued program experience which were used in the development of the premium rate for fiscal 1973 are given in Appendix I.

The future cash expenditures shown in this report are based on estimates used to prepare the budget, and agree with amounts shown therein. The methodology described below produced estimates that were reasonably close to the budget estimates prepared by adjusting accrued expenses for the various types of lag in payments and other non-recurring factors. In fact, in the absence of radical changes in program policy, changes in the general level of benefits paid tend to take place slowly, so that reasonably accurate projections of the short-run (i.e., 1 or 2 years) cash outlays of the program can be made by simply projecting the cash actually paid in the most recent period, using economic and actuarial assumptions appropriate to the periods in which the services for which payment is made were performed. Further, adjustment can be made in anticipation of the effect of changes in the primary economic variables or in administrative policy and the lag with which they will take effect, and the projections adjusted accordingly. One aspect which simplifies the cash projection is the fact that policy affecting the carrier's reasonable charge screen relates to charges at the time they are screened for payment and not when the services were actually rendered. Besides allowing for price and other increases in the cost of services received, the cash projection reflects increased costs due to the leverage of the $50 static deductible and increased enrollment. The administrative expenditures are projected to be in line with increased workloads, payroll expenses, and other estimates prepared for the budgetary process.

(c) DEVELOPMENT OF BASE YEAR PROGRAM COSTS

Benefits under the supplementary medical insurance program can be distinguished both by the type of service or provider for which the benefit is paid and the type of payment mechanism used. Program administration may affect both the amount paid and the promptness of payment by directly affecting the benefit paid (as in the case of fee screen policy) or by affecting the payment mechanism (for example, the regulations barring payments to institutions which have not submitted cost reports with reasonable promptness). Further, for purposes of projecting the present levels of program benefits, the benefits must be divided by types of payment mechanism, since this is the form in which data from the program are available.

The primary forms of payment are: (1) through "carriers" (Blue Shield plans or other insurance companies), which establish the "reasonable charge" for each service and reimburse providers if an assignment has been made and enrollees otherwise, (2) through "intermediaries" (primarily Blue Cross) who make interim payments to institutions (hospitals, certain rehabilitation and public agencies, extended care facilities, and home health agencies), and later adjust these payments for the difference between such interim payments and audited "reasonable costs", and (3) direct payments to group practice plans and institutions electing to deal directly with the Social Security Administration.

Since each of these payment mechanisms involves its own lags between the dates on which services are performed and the dates on which payments are made and other administrative peculiarities, a separate series of adjustments was made for each payment mechanism. Further, administrative policy is generally directed to benefits paid under a particular mechanism; e.g., the policy regarding the prevailing fee level applies to services paid through the carriers and not to either the institutional or the direct payments. Finally, the currency and quality of the basic date—and consequently the accuracy of estimates made from it—varies substantially by source.

For these reasons, estimates of the incurred experience for the base year and preceding years were derived separately for (1) radiology and pathology for inpatients, (2) other physician services and miscellaneous services paid by carriers, (3) all institutional services, and (4) group practice plans dealing directly with the Social Security Administration. Tables A, B, and C summarize the estimated past incurred benefits by payment source.

Calendar year 1970 was chosen as the base year for the projection because it was the latest year for which the data was considered to be sufficiently complete (about 90 percent) to permit an accurate estimate of the total. The incurred experience is analyzed by calendar years which most readily permit proper analysis of the effect of the $50 deductible (which is applicable to calendar year expenses). The increased reimbursements made in any calendar year due to any carry-over deductible from the prior year are assumed to be incurred in the calendar year for which they are payable.

TABLE A.—REIMBURSEMENT FOR SERVICES ON PAYMENT RECORDS

Calendar year	Average enrollment (millions)	Reimbursement (millions)		Reimbursement per capita	
		Accrued	Cash	Accrued	Cash
1966	17.7	$473.6	$120.9	$26.73	$6.82
1967	17.9	1,313.2	1,134.2	73.40	63.40
1968	18.5	1,479.5	1,425.9	79.83	76.93
1969	19.1	1,637.1	1,599.8	85.71	83.75
1970	19.5	1,738.8	1,702.5	88.96	87.11

TABLE B.—REIMBURSEMENT FOR INSTITUTIONAL SERVICES ON PROVIDER BILLS

Calendar year	Average enrollment	Interim reimbursement (millions)		Final settlements (cash)[1] (millions)	Interim reimbursement per capita	
		Accrued	Cash		Accrued	Cash
1966	17.7	$17.2	$2.7	0	$0.97	$0.15
1967	17.9	54.6	42.0	$0.3	3.05	2.35
1968	18.5	81.0	71.6	2.1	4.37	3.86
1969	19.1	109.7	102.6	9.9	5.74	5.37
1970	19.5	108.2	108.0	39.6	5.53	5.52

[1] Exclusive of radiology and pathology adjustments.

TABLE C.—SUMMARY OF ACCRUED BENEFITS PER CAPITA BY SOURCE OF PAYMENT

Calendar year	Payment records	Combined billing inpatient R. & P.	Institutions			Total
			GPPP	Interim	Adjustment	
1966	$26.73	0	$0.38	$0.97	$0.26	$28.34
1967	73.40	0	1.16	3.05	.83	78.44
1968	79.83	$1.20	1.24	4.37	1.18	87.82
1969	85.71	1.71	1.44	5.74	1.55	96.15
1970	88.96	2.30	1.34	5.53	1.50	99.63

It should be noted that any inadequacies in the base year data will be compounded as the experience is projected to future years. The lag in the collection of data as well as the fact that only a 5 percent sample of payments to physicians on an incurred basis is available must be considered a limitation on the accuracy with which the base year can be estimated. The estimated base year per capita incurred cost of $99.63 must, therefore, be considered to be only within 3–5 percent of the actual liability. In spite of these limitations, primary reliance is put on program data. The principal sources of data are elaborated on more fully in the following section.

(D) PRIMARY RELIANCE ON PROGRAM DATA

There are many variables that affect the difference in the level of services that will be sought and performed for a population that is insured under a specific program and a population insured under a different kind of program or mix of programs or not insured at all. Although data illuminating the behavior of most of the important variables affecting health insurance are incomplete and scarce, data concerning the variables that affect the difference in levels of utilization between the different types of programs are particularly scarce and inconclusive. Much more reliable data is available for the cost of particular insured groups where statistics are available from actual programs. Far more accurate estimates can be made of the future cost of a particular program by paying attention to data derived directly from experience under that program, rather than attempts to use other data.

1. Benefits paid through carriers (benefits on payment records)

Approximately 89 percent of supplementary medical insurance benefits are paid by carriers; and carriers are required to submit payment records covering all payments made. These payment records are tabulated by date of service rendered on a 5 percent and a .1 percent actuarial sample basis, which permits analysis of the program on an accrued basis. Described below are several corrections that must be made to this data to eliminate biases resulting from the processing system.

There is a substantial lag between the date on which services are performed, and the date on which payment records are received by the Social Security Administration. A major part of the lag is due to physicians or beneficiaries collecting a number of bills before submitting them to carriers for payment. Further delays result from the time required by carriers to query Baltimore for the status of the deductible and to adjudicate and pay the claims. This is especially so if the information submitted is incomplete or special handling is required to determine the reasonable fee or whether the services are covered. There may be a further delay before payment records are submitted. There is also strong evidence that payment records for some benefits paid have never been submitted.

Finally, editing and processing of payment records by the Social Security Administration is required before tabulation, and if the edit produces any inconsistencies, a very long delay may result from returning the payment record to the carrier for correction. In the first years of the program, many payment records that were returned to carriers were never resubmitted, probably because some carriers did not maintain adequate documentation with which to meet Social Security Administration specifications. Consequently, the .1 percent actuarial sample was based only on those records corrected and resubmitted. Currently, however, the proportion never returned is very small, as determined by statistical controls.

Thus, in order to estimate the level of benefits accrued for any recent period, adjustments must be made for payment records covering services that have been performed but for which payment records have not been tabulated by the Social Security Administration. These "accrued but unreported" payment records must be added to those already received for the period in question.

In addition to this adjustment for the lag between the data on which a service is performed and the data the payment record is tabulated by the Social Security Administration, there are other corrections that must be made to the data to eliminate understatement and biases.

One correction is made to the sample data to eliminate the estimated understatement due to payment records that were never submitted to the Social Security Administration for processing. Another correction is made to the sample data for

the estimated difference between the mean cost of enrollees in the sample and the average cost for all of the enrollees in the program. These differences are due to:

(a) selection of the sample enrollees in a manner such that their health and geographic distribution may not be representative of all enrollees (i.e., the expected value of their cost is different from that of all enrollees),

(b) statistical fluctuations in the sample average cost about the expected value for these enrollees, and

(c) the manner in which the sample is drawn (slightly less than .1 percent of all enrollees are sampled).

2. Inpatient radiology and pathology paid initially through the hospital insurance program

As a result of the 1969 amendments, hospital-based radiologists and pathologists have the option of concluding agreements with a hospital under which the hospital bills for their services. Where these agreements are in effect, payment is made for these services from the hospital insurance trust fund by the hospital insurance intermediary. The hospital insurance trust fund is subsequently reimbursed from the supplementary medical insurance trust fund. Interim payments to hospitals are made on the basis of an estimated average cost for all inpatient radiology and pathology professional services reimbursed by the hospital insurance program for that hospital. The acutal liability of the program however, depends on subsequent cost settlements with the hospitals. No data concerning accrued costs is available, due to the failure of the data system intended to provide information on interim payments. Consequently, estimates of the liability of the program as a result of this payment mechanism must be based on cost settlement data reported to the Social Security Administration on a monthly basis by intermediaries. Presently there is little information on which to judge the completeness of this data. This inadequacy in the data available from the program gives rise to the possibility of substantial errors in estimating this component of the cost of the program.

3. Institutional services reimbursed by intermediaries

Payments by intermediaries to hospitals for outpatient hospital services, to hospitals for services for beneficiaries who have exhausted their hospital insurance benefits, to extended care facilities for outpatient services, and to home health agencies for services not covered by hospital insurance are on an interim basis, and adjusted by a subsequent settlement with the instituion on the basis of an audited cost report. As in the case of benefits under the hospital insurance program, interim bills are submitted to support claims for interim payments. These bills are tabulated by date of service, and an estimate is made of the interim payments for these services on an accrued basis. The data tabulated in the .1 percent actuarial sample, however, contain substantial biases. It is estimated that there has been a deficiency in the accumulated experience for the years 1966–70 of around 9 percent, but these estimates rest on very tenuous evidence. A study of a very small sample of cost settlements and an analysis of total retroactive cost settlements made through June 1971 indicate that the interim payments must be increased by around 27 percent in order to reflect the level of total accrued costs.

4. Group practice plans dealing directly with the Social Security Administration

Group practice plans that deal directly with the Social Security Administration are reimbursed on a cost basis. They are financed on an interim payment basis designed to keep current the reimbursements for services performed. Analysis of retroactive cost settlements made to these plans through June 1971, however, suggests that these interim payments should be increased by about 8 percent to reflect the level of accrued costs.

5. Institutions reimbursed directly by the Social Security Administration

The same basic procedures used by intermediaries are also followed by the Social Security Administration to reimburse institutions that have elected to be paid directly by the Social Security Administration rather than through intermediaries. Although data from this source might be analyzed separately, the amount involved has been too small to merit separate attention. Consequently, direct institutional reimbursements were analyzed jointly with other institutional benefits.

(E) ASSUMPTIONS USED IN PROJECTIONS

1. Increases in prices and costs

Economic data concerning the trends of the cost of health care are generally available by the type of service performed. Thus, for the purpose of projecting the future levels of the services performed, it is convenient to break down the supplementary medical insurance benefits by the type of service which is provided. In general, this requires a further subdivision of services paid by each type of payment mechanism. Thus, the benefits paid by carriers and recorded on payment records are separated into those for house visits, office visits, inpatient visits, surgery, x-ray, and laboratory, radiologists, and pathologists for care of inpatients, outpatient radiology and pathology, and miscellaneous. Institutional benefits are divided into services provided by hospital outpatient departments, independent clinics, home health agencies, extended care facilities, and hospital inpatient departments (for patients who have exhausted their hospital insurance benefits). For convenience, however, and also because no accuracy is sacrificed, weighted factors were derived for price increases (and certain other increases described subsequently) only for (1) radiology and pathology for inpatients, (2) other physician services and miscellaneous services paid by carriers, (3) all institutional services, and (4) group practice plans.

The average price increases in physicians fees shown in table D through calendar 1971 are based on the weighted averages of the Bureau of Labor Statistics indexes for house and office visits and special indexes for geriatric inpatient surgical and heart care. The 2.5 percent increase shown for calendar years 1972 and 1973 is in accordance with the Phase II Price Commission Guidelines for physicians under the Economic Stabilization Program. The effect of the fee screen on increases in physician charges (price being only one component thereof) is also shown in table D. Table E shows the combined increase in future reasonable costs for the institutional and direct dealing group practice components of the program. The increase factors other than price increases are discussed next.

TABLE D.—ESTIMATED INCREASE IN PHYSICIANS' CHARGES (RECOGNIZED BY THE PROGRAM AS REASONABLE)

[In percent]

Calendar year	Prices	Change in effect of fee screens [1]	Increase in reasonable charges	Residual increases [2]
1967/1966	6.2	−0.6	12.3	6.3
1968/1967	6.2	−.8	5.8	.3
1969/1968	6.6	−2.7	5.1	1.1
1970/1969	6.5	−5.1	3.2	1.7
1971/1970	6.2	−.8	7.5	2.0
1972/1971	2.5	+.1	6.2	3.5
1973/1972	2.5	0.0	6.1	3.5

[1] Effect of reductions between year y and y+1. Initial reductions in 1966 were about 2½ percent of the charges on payment records.
[2] See text for explanation.

TABLE E.—ESTIMATED INCREASES RECOGNIZED BY THE PROGRAM (ALL INCREASE FACTORS COMBINED)

[In percent]

Calendar year	Physician services	Inpatient radiology and pathology	Group practice plans	Institutions
1971/1970	7.5	11.0	8.3	11.9
1972/1971	6.2	9.3	6.1	10.5
1973/1972	6.1	8.7	6.1	11.3
1974/1973	7.5	10.2	7.4	11.3

2. Residual factors affecting future costs

In addition to price increases the costs of the program are affected by a number of other economic factors. The residual increase in physician charges shown in table D is due to (but not limited to) (a) changes in the mix of services rendered reflecting trends to use new, more complex, and more expensive techniques, (b) changes in the delivery of care, including increased specialization, (c) changes in utilization as a result of chance fluctuations in health (e.g. epidemics) or other conditions giving rise to a different number of physician visits per capita, (d) any tendency of physicians' fees which are below the customary fee to increase faster than the customary fee (any tendency for such increases to be less than average would have a negative impact on the residual component), (e) changes in the manner in which physicians bill for their services, and (f) any difference between the actual and estimated increase in reasonable charges due to price increases or to the fee screen.

The substantial increase in the residual component in 1967 over 1966 as shown in table D was due in large part to the rapid acceptance of the program as beneficiaries became more familiar with the benefits. The average trend of over 2 percent experienced in the past is anticipated to continue into the future with additional increases assumed during the period of price controls. Part of the latter is necessary for consistency with the method by which the residual was derived.

Increases in the cost of institutional care under the program are also influenced by the economic factors discussed above for physicians services. The anticipated combined effect of future price and other increases recognized by the program are shown in table E. As can be seen from table E, the institutional component of the program is expected to rise much more rapidly over the next few years than the physician component, reflecting trends in the recent past.

3. Administrative policy affecting program costs

Policy changes in the administration of the reasonable and customary fee screen have a substantial impact on future benefits payable under the Supplementary Medical Insurance Program. The customary fee charged by a physician for a given procedure is defined as the median of all such fees charged by that physician during a particular calendar year. The prevailing fee for a given procedure and locality is set at a certain percentile of the distribution of the customary fees for that procedure of all physicians in that locality.

The general methodology followed by the Social Security Administration in implementing the fee screens is to base the customary charges (and hence the prevailing charges which are derived from customary charges) for any fiscal year when a particular premium rate is in effect on data derived from the previous calendar year. This policy allows six months after the end of a calendar year for carriers to tabulate the data required to derive such customary charges, to compile customary and prevailing charges, and to substitute the new charges in the fee screens. Since physician fees have been rising in excess of 6 percent per year, as a result of general fee increases by physicians on the average of once every three years, this policy alone (without any reductions due to a prevailing charge screen) reduces about one third of all charges and reduces the amount paid by approximately 7 percent, due purely to the delay in recognition of customary fees.

These policies have not been followed systematically, however. Throughout calendar year 1970 the customary and prevailing fee screens were based on calendar year 1968 charge levels. The prevailing fee limit was set at the 83rd percentile of calendar 1968 customary fees. As shown in table D the effect of this administrative action was to markedly reduce recognized increases in physicians fees during calendar year 1970. Claims processed between January and June 1971 were compared to a fee screen based on calendar 1969 charges. Accompanying this updating of the fee screen was an administrative decision to lower the prevailing fee limit from the 83rd to the 75th percentile of calendar 1969 charges. The claims processed during the second half of calendar year 1971 (as well as those processed through June 1972) were compared to a customary prevailing fee screen which was based on calendar 1970 charges. As can be seen from table D the use of more recent data as a base for the fee screen in calendar 1971 reduced

the change in the effect of the fee screen in 1971 over that for 1970. The wage-price freeze in the latter part of calendar 1971 also contributed to slowing the increased number of fees reduced by the screen. Prior to the promulgation of the premium rate for fiscal year 1973, the Price Commission ruled that during fiscal year 1973 the program should recognize no more than a 2½ percent increase in physicians customary fees. The cost estimates in this report were prepared under the assumption that the fee screen set by the Social Security Administration for fiscal 1973 would be in full and complete compliance with the Price Commission ruling. The updating of the customary and prevailing fee screen as of July 1, 1972, to recognize calendar 1971 charges is therefore to recognize customary (and hence prevailing) fee increases of no more than 2½ percent is the aggregate. The same limitation of 2½ percent is also assumed to apply to the updating of the fee screen on July 1, 1973, for application in fiscal 1974. As mentioned previously the cost estimates in this report also assume that physicians will limit fee increases to 2½ percent per annum for calendar year 1972–73. Since the fee screen and physician fees generally are expected to go up at about the same rate, the result is that there will be little change in the effect of the fee screen during calendar 1972 and 1973 over the 1971 level (i.e., fee screen reductions as a percentage of charges are expected to continue at about the 11.5 percent level experienced in calendar 1971). In general, physicians will accept assignments if (i) the reimbursements received on previously assigned bills are reasonably close to the amount the doctor expects to receive, or if (ii) the doctor expects to encounter difficulty in collections or to produce a difficulty for the patient he does not wish to occur. Carrier statistics indicate that the rate at which physicians accept assignments has decreased 2–3 percent during 1971.

Thus if there is too large a discrepancy between fees being charged by physicians and those recognized by the program, assignments will tend to be accepted only for low income patients. The effect will be to provide less comprehensive insurance than originally intended for those able to pay and force those unable to pay for their services to find physicians who are either willing to perform services for less than the going rate or are willing to donate some portion of the value of the services provided. On both accounts the intent of the program would not be accomplished For this reason, the level of fees recognized by the program cannot fall far behind the going rate without causing a fall in the assignment rate and potential difficulties to beneficiaries. It remains to be seen what effect the Phase II physician price guidelines and the fee screen will have on assignments in 1972 and beyond.

4. Enrollment

The enrollment in the supplementary medical insurance program is projected to be 96 percent of the total aged population. The assumption as to the number aged 65 or over is the same as that made in the projection of the old-age, survivors and disability insurance program.

5. Interest rate

An interest rate of 6 percent was assumed in estimating the future interest earnings of the supplementary medical insurance trust fund.

Appendix III. Summary of Principal Provisions

Public Law 89-97, approved July 30, 1965, amended the Social Security Act by establishing the supplementary medical insurance program. A summary of its principal provisions, as amended by subsequent legislation up to and including the date of this report, is as follows:

1. COVERAGE PROVISIONS (FOR CONTRIBUTION AND BENEFIT PURPOSES)

(a) Persons aged 65 and over on December 31, 1965—voluntary individual election of coverage during period through May 31, 1966, by any individual eligible for hospital insurance benefits or by any other citizen or any other alien lawfully admitted for permanent residence who has at least 5 consecutive years or residence immediately preceding enrollment (except with respect to persons convicted of certain specified offenses such as treason, espionage, etc.), effective July 1, 1966.

(b) Persons attaining age 65 after 1965—similar election in the 7-month period centering around the month of attainment of age 65 (or first subsequent month when eligibility requirements are met), to be effective for month of at-

taining age 65 if elected in advance (otherwise, effective for first to third month following election).

(c) Persons failing to enroll in an initial period can enroll in any general enrollment period (January to March of each year), that begins within 3 years after the close of his initial enrollment period, to be effective the next July.

(d) Termination of enrollment—either by failure to pay premiums (for premiums not deducted from benefits) or by election to do so at any time (to be effective at the end of the following calendar quarter). An individual who terminates coverage may reenroll if he does so in a general enrollment period that begins within 3 years after such termination, with reenrollment permitted only once.

2. BENEFITS PROVIDED

(a) Types of benefits—physician and surgeon services (including anesthesiologist, pathologist, radiologist, and physical medicine in hospital), hospital outpatient services (prior to April 1, 1968, such services that were of a diagnostic nature and were furnished by a particular hospital in an amount in excess of $20 during a 20-day period were excluded from this program because they were included in the hospital insurance program; currently, all these outpatient services are consolidated in the Supplementary Medical Insurance Program), home health services (as in the hospital insurance program, but without requirement that they be furnished after hospitalization), and certain other medical services, such as limited ambulance services, prosthetic devices, rental of hospital equipment used at home (or purchase thereof if not more expensive, after December 31, 1967), and surgical dressings.

(b) Amount of reimbursement—plan pays:

(i) in the case of the professional component of inpatient radiology and pathology, 100 percent of reasonable charges, and

(ii) for all other services, 80 percent of reasonable charge (or, in the case of institutional services, 80 percent of reasonable cost) after the participant has paid a calendar-year deductible of $50; special limits on out-of-hospital mental-care costs (50 percent coinsurance and $250 maximum annual, reimbursement), and on home health services (100 visits per calendar year).

(c) Basis of payment—reimbursement on a "reasonable charge" basis to the enrollee or to individual suppliers of services on the basis of an assignment from the enrollee, or on a "reasonable cost" basis to the particular institution for institutional suppliers of services. When payment is made on a "reasonable charge" basis directly to individual suppliers (by assignment), the "reasonable charge" determination by the carrier must be accepted as the full charge for the services, and the supplier cannot bill the patient for amounts in excess of the "reasonable charge"; otherwise, payment is made to the enrollee on the basis of an itemized bill, whether or not receipted (prior to January 2, 1968, payment was made to participant only upon presentation of a receipted bill).

(d) Services not covered—self-administered drugs (only covered under hospital insurance, and then only when the individual is receiving covered hospital or extended care facility services and only when ordinarily furnished in and by such hospital or facility), private duty nursing, dental services, routine physical and eye examinations, elective cosmetic surgery, services performed by a relative or household member, services performed by a governmental agency (except when it provides services to the public generally as a community institution or agency), eyeglasses and hearing aids, and cases eligible under workmen's compensation.

(e) Administration—by Department of Health, Education, and Welfare, through carriers (such as Blue Shield and insurance companies) who are selected by the Department, according to regulations promulgated by the Secretary of Health, Education and Welfare. Carriers are paid their reasonable costs of administration.

3. FINANCING

(a) Participant premiums—flat monthly premium at a standard rate determined by Secretary of Health, Education, and Welfare. A rate of $5.60 was promulgated for fiscal year 1971, and a rate of $5.80 has been promulgated for fiscal year 1972. The rate applicable to each succeeding fiscal year will be promulgated by the Secretary before the preceding January 1. Such rate for any period is intended to be adequate, along with other income of the system, to support the cost of the benefits and administration for services received by enrollees during the period on an

accrual basis, plus a margin for contingencies. A higher rate than the standard one is to be paid by those enrolling late or reenrolling after terminating enrollment (a surcharge of 10 percent of the premium rate for each full year during which an individual enrolling late could have participated but did not).

(b) Government contributions—amount equal to total premiums paid by or on the behalf of participants.

(c) Payment of premiums—by automatic deduction from old-age, survivors, and disability insurance, railroad retirement, or civil service retirement benefits when possible (except for such persons who are public assistance recipients receiving money payments and whose premiums are paid by State agencies). Otherwise, for persons affected by earnings test and for persons not eligible for such benefits, by direct payment, with a grace period determined by the Secretary of Health, Education and Welfare of up to 90 days. State public assistance agencies may enroll, and pay premiums for, public assistance recipients who receive money payments and other persons who are not recipients of money payments but who are eligible under the medical assistance program; at the option of the State, such recipients and other persons who are beneficiaries under the old-age, survivors, and disability insurance program or the railroad retirement program may be included in this group.

(d) Supplementary Medical Insurance Trust Fund—established on same basis as old-age and survivors insurance, disability insurance, and hospital insurance investment procedures. Premiums paid or deducted from benefits on the behalf of enrollees are transferred to this trust fund. In addition, matching funds are appropriated from the general fund of the Treasury and are transferred to the trust fund simultaneously with the premiums (with proper interest adjustment if any difference in timing occurs).

○