

## APPENDIX A

### STATEMENT OF ACTUARIAL ASSUMPTIONS AND BASES EMPLOYED IN DETERMINING THE MONTHLY ADEQUATE ACTUARIAL RATES AND THE STANDARD MONTHLY PREMIUM RATE FOR THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM BEGINNING JULY 1977 <sup>1</sup>

This is a statement of actuarial assumptions and bases employed in determining the adequate actuarial rates and the standard monthly premium rate for the supplementary medical insurance program (SMI) for the period July 1977 through June 1978. The monthly adequate actuarial rate for enrollees age 65 and over is \$12.30. The monthly adequate actuarial rate for disabled enrollees is \$25.00. The standard monthly premium rate for both types of enrollees is \$7.70.

#### I. ACTUARIAL STATUS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND

The law requires that the SMI program be financed on an incurred basis. That is, the income to the program during the 12-month period for which adequate rates are effective must be sufficient to pay for services (including associated administrative costs) 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 trust fund at any time should be equal to the cost of the benefits and administration incurred but not yet paid. Because the adequate rates are established prospectively, they are subject to projection error. As a result, the income to the program may not be equal to incurred costs, and therefore the trust fund may not be equal to the value of incurred but unpaid expenses. Modest deficiencies in the trust fund balance do not interfere with the operation of the program if the fund is large relative to outlays and if future financing is established to correct the deficiencies. Table I summarizes the estimated actuarial status of the trust fund as of June 30, 1975, 1976, and 1977.

TABLE I  
[In millions of dollars]

Year ending June 30—	Assets at end of period	Liability for incurred but Unpaid Services	Assets-Liabilities
1975.....	\$1,484	\$1,399	\$85
1976.....	1,308	1,732	-424
1977.....	1,945	2,055	-110

<sup>1</sup> This statement appeared in the Federal Register of December 22, 1976. Projections shown in this statement differ slightly from the projections shown in the rest of this report because of minor changes in assumptions since the rates were promulgated.

The sizable deficit shown at the end of fiscal year 1976 results from program cost increases substantially in excess of those anticipated in setting the adequate rates for 1976. The adequate rates for the year ending June 30, 1977, contain a margin which is expected to decrease the program deficit by about \$300 million at the end of that year. This remaining deficiency must be considered in establishing the financing for subsequent years.

## II. MONTHLY ADEQUATE ACTUARIAL RATES FOR ENROLLEES AGE 65 AND OLDER

The monthly adequate actuarial rate is one-half the monthly projected per capita cost for benefits and administrative expenses adjusted to allow for interest earnings on the fund, to allow for a contingency margin, and to allow for amortization of the program surplus or deficit.

The monthly adequate actuarial rate for enrollees age 65 and older for the year ending June 30, 1978, was determined by projecting the fiscal year 1975 per capita cost by type of service. The projected costs for the years ending June 30, 1975, 1976, 1977, and 1978 are shown in table II. The 1975 values were established from program data. Subsequent years were projected using a combination of program data and data from external sources. The projection factors used are shown in table III.

TABLE II.—DERIVATION OF SMI AGED MONTHLY RATE REQUIRED FOR YEARS ENDING JUNE 30, 1975-78

	1975	1976	1977	1978
<b>Covered services (at level recognized):</b>				
Physicians' reasonable charges.....	\$8.20	\$9.34	\$10.41	\$12.25
Radiology and pathology.....	.36	.43	.49	.57
Group practice plans.....	.17	.21	.25	.28
Independent lab.....	.07	.07	.08	.09
Home health agencies.....	.14	.18	.24	.31
Outpatient hospital and other institutions.....	.98	1.28	1.66	2.16
<b>Total services.....</b>	<b>9.92</b>	<b>11.51</b>	<b>13.13</b>	<b>15.66</b>
<b>Cost sharing:</b>				
Deductible.....	-1.67	-1.70	-1.72	-1.73
Coinsurance.....	-1.55	-1.85	-2.14	-2.62
<b>Total benefits.....</b>	<b>6.70</b>	<b>7.96</b>	<b>9.27</b>	<b>11.31</b>
<b>Administrative expenses.....</b>	<b>.72</b>	<b>.90</b>	<b>.90</b>	<b>.97</b>
<b>Incurred expenditures.....</b>	<b>7.42</b>	<b>8.86</b>	<b>10.17</b>	<b>12.28</b>
Value of interest on fund.....	-1.19	-1.18	-1.16	-1.27
<b>Margin for contingencies and to amortize unfunded liabilities.....</b>	<b>-1.53</b>	<b>-1.18</b>	<b>.69</b>	<b>.29</b>
<b>Promulgated rate.....</b>	<b>6.70</b>	<b>7.50</b>	<b>10.70</b>	<b>12.30</b>

TABLE III  
[In percent]

	Year ending June 30—		
	1976	1977	1978
Physicians' services:			
Fees <sup>1</sup> .....	8.5	<sup>2</sup> 10.8	9.5
Number and mix <sup>3</sup> .....	5.0	4.0	4.0
Outpatient hospital and home health agencies.....	30.0	30.0	30.0
Group practice plans.....	25.0	15.0	15.0
Other.....	20.0	15.0	15.0

<sup>1</sup> As paid by the program.

<sup>2</sup> Increase in the number of services received per capita and greater relative use of more expensive services.

<sup>3</sup> Reasonable charges were updated later than July 1, 1976, in most areas so the average cost increase shown in table II is less than 10.8 percent.

The projected monthly rate required to pay for one-half of the total of benefits and administrative costs for the year ending June 30, 1978, net of interest is \$12.01. The monthly actuarially adequate rate of \$12.30 will eliminate the remaining deficit if the assumptions used in this projection are realized.

### III. ADEQUATE ACTUARIAL RATE FOR THE DISABLED

The monthly adequate actuarial rate for disabled enrollees applies to persons eligible because they have been entitled to disability insurance benefits for not less than 24 consecutive months or because they are suffering from end stage renal disease. Projections for disabled beneficiaries (other than those suffering from end stage renal disease) are prepared in an exactly parallel fashion as projections for the aged using the same actuarial assumptions. Costs for the end stage renal disease program are projected using a computer model because of the complex demographic problems involved. The combined results for all disabled beneficiaries are shown in table IV. The monthly rate required to pay for one-half of the total of benefits and administrative costs for disabled beneficiaries for the year ending June 30, 1978, net of interest earnings is projected to be \$24.41. The monthly actuarially adequate rate of \$25.00 provides a small margin for contingencies.

TABLE IV.—DERIVATION OF SMI DISABLED MONTHLY RATE REQUIRED FOR YEAR ENDING JUNE 30, 1975-78

	1975	1976	1977	1978
Total benefits.....	\$12.15	\$15.53	\$18.88	\$22.97
Administrative expenses.....	1.30	1.76	1.83	1.98
Incurred expenditures.....	13.45	17.29	20.71	24.95
Value of interest on fund.....	-.34	-.35	-.32	-.54
Margin for contingencies and to amortize unfunded liabilities.....	4.89	1.56	-1.39	.59
Promulgated monthly rate.....	18.00	18.50	19.00	25.00

## IV. SENSITIVITY TESTING

Several factors contribute to uncertainty about future trends in medical care costs. In view of this, it seems appropriate to test the adequacy under alternate assumptions of the rates promulgated here. The most unpredictable factors which contribute significantly to future costs are outpatient hospital costs, physician utilization, and the increase in physician fees as constrained by the reasonable charge screens and the newly implemented economic index. (Utilization here is measured indirectly and refers to increased costs per capita due to added visits, the use of more expensive services, and other factors not explained by simple price per service increases.) Two alternative sets of assumptions and the results of those assumptions are shown in table V. All assumptions not shown in table V are the same as in table III.

Table V indicates that under fairly optimistic assumptions the monthly rates promulgated will result in a surplus of \$523 million by the end of June 1978. Under fairly pessimistic assumptions the deficit increases to \$994 million but the trust fund remains positive allowing the program to continue paying claims as presented.

## V. STANDARD PREMIUM RATE

The law provides that the standard monthly premium rate, promulgated in December to apply for both aged and disabled enrollees under the supplementary medical insurance program, shall be the lesser of:

1. The actuarial rate for enrollees age 65 and older; or
2. The standard monthly premium currently being charged, increased by the same percentage that old-age, survivors, and disability insurance benefits were increased since the May preceding the promulgation (and rounded to the nearer dime).

The standard monthly premium currently being charged is \$7.20. The OASDI benefit table was increased 6.4 percent in June 1976. The \$7.20 rate increased by 6.4 percent is \$7.70 rounded to the nearer 10 cent multiple. Since this is less than the \$12.30 actuarial rate, the standard premium rate is \$7.70 for the 12 months ending with June 1978.

TABLE V.—ACTUARIAL STATUS OF THE SMI TRUST FUND UNDER 3 SETS OF ASSUMPTIONS

	This projection		Low assumption		High assumption	
	1977	1978	1977	1978	1977	1978
Per enrollee increases in:						
Physician fees (percent).....	10.8	9.5	10	9	12	10.5
Physician utilization <sup>1</sup> (percent).....	4.0	4.0	3	3	6	6.0
Outpatient hospital and home health agencies (percent).....	30.0	30.0	25	25	50	50.0
Assets as of June 30 (in millions).....	\$1,945	\$2,645	\$2,029	\$2,970	\$1,741	\$1,773
Liabilities as of June 30 (in millions).....	2,055	2,533	2,021	2,447	2,140	2,767
Trust fund—liabilities.....	-110	112	8	523	-399	-994

<sup>1</sup> Increase in the number of services received per capita and greater relative use of more expensive services.

## APPENDIX B

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

#### 1. SUMMARY OF THE METHODOLOGY

##### *a. Aged beneficiaries:*

Estimates for aged beneficiaries are prepared by establishing, as accurately as possible, reasonable charges incurred per person in a recent year (fiscal 1975 for this report) and projecting these charges through the estimating period. The per capita charges are then converted to reimbursement amounts by subtracting out the per capita values of deductibles and coinsurance. Aggregate reimbursement amounts are calculated by multiplying the per capita values by the projected enrollment. Finally, in order to estimate the cash disbursements of the program an allowance is made for the delay between receipt of a service and payment therefor.

##### *b. Disabled beneficiaries:*

Persons on the disability insurance rolls for at least 24 months and persons suffering from chronic kidney disease first became eligible for coverage under SMI in July 1973. The experience of these enrollees has not yet matured in the sense that an accurate historical series of their cost patterns cannot be constructed from the sparse data so far available. Also, the number of covered chronic kidney disease patients is expected to continue to increase rapidly for the next few years. Therefore certain modifications in the projection methodology have been required for these beneficiaries, and further modifications may be necessary in the future as experience emerges.

#### 2. ESTIMATES FOR AGED BENEFICIARIES

##### *a. Establishing a suitable base for projection:*

###### *(1) Physician Services:*

Reimbursement amounts for physician services (and a small amount of other services) are paid through fiscal intermediaries, referred to as carriers. The carriers determine whether billed services are covered under the program and determine the allowable charge for the service. The amount reimbursed after reductions for coinsurance and the deductible is transmitted to the Social Security Administration in the form of a payment record.

Payment records for 0.1 percent of aged beneficiaries are tabulated by date of service, thus putting the data base on an incurred basis. Having the data on an incurred basis makes it possible to meet the statutory requirement that the program be financed on this basis and also makes possible comparison of program experience with non-program data sources.

Certain minor adjustments are made to the tabulated sample data to correct for biases and random fluctuation inherent in the sampling process. The incurred reimbursement amounts for fiscal year 1967 through 1975 are shown in table B1. Also shown are the average enrollment figures for each of those years and the average reimbursement per capita.

Finally, as a check on the quality of the tabulations, the incurred expenses are compared with the cash expenditures reported by the carriers through an independent reporting system. In a program with continuously increasing expenditures it is to be expected that cash payments will be slightly lower than incurred expenses except in the first year when the difference should be substantial. These differences between cash and incurred expenses occur because of the lag between receipt of services and payment therefor. Table B1 also shows the cash expenditures related to services reported on payment records.

TABLE B1.—AGED BENEFITS PAID FOR SERVICES ON PAYMENT RECORDS

Fiscal year	Average enrollment (millions)	Incurred		Cash	
		Total (millions)	Per capita	Total (millions)	Per capita
1967	17.750	\$1,055	\$59.49	\$635	\$35.77
1968	18,038	1,335	74.01	1,322	73.29
1969	18,833	1,557	82.67	1,518	80.60
1970	19,312	1,665	86.22	1,661	86.01
1971	19,664	1,801	91.59	1,782	90.62
1972	20,043	1,993	99.44	1,964	97.99
1973	20,428	2,175	105.47	2,095	102.56
1974	20,988	2,438	116.16	2,359	112.40
1975	21,471	2,948	137.30	2,782	129.57

(2) *Institutional Services:*

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

Reimbursement for institutional services occurs in two stages. Provider bills are submitted to the intermediaries and an interim payment is made based on these bills. The bills are then submitted to SSA, and tabulations are prepared in a manner parallel to that for payment records and for the same sample of beneficiaries.

At the close of the 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 providers and their actual cost for providing services (net of coinsurance and deductible amounts). The amounts of these final settlements are reported on a cash basis, and approximations are necessary to allocate these payments to time of service.

Table B2 shows the approximate total incurred reimbursement amounts and the actual cash expenditures as reported on both an interim and final settlement basis.

TABLE B2.—AGED BENEFITS PAID FOR INSTITUTIONAL SERVICES

Fiscal year	Average enrollment (millions)	Incurred benefits		Cash benefits			
		Total (millions)	Per capita	Interim	Final	Total	Per capita
1967.....	17.750	\$40	\$2.25	\$18.1	\$0.1	\$18.2	\$1.03
1968.....	18.038	70	3.88	55.4	1.0	56.4	3.13
1969.....	18.833	120	6.37	91.5	4.7	96.2	5.11
1970.....	19.312	135	6.99	102.3	26.2	128.5	6.65
1971.....	19.664	182	9.26	111.9	50.4	162.3	8.25
1972.....	20.043	202	10.08	140.4	71.7	212.1	10.58
1973.....	20.428	251	12.29	160.3	59.7	220.0	10.77
1974.....	20.988	271	12.91	198.1	50.1	248.2	11.83
1975.....	21.471	401	18.67	338.0	58.9	396.9	18.49

*(3) Other Services:*

Group practice prepayment plans are reimbursed directly by the Social Security Administration on a cost basis. Data are available for these payments only on a cash basis, and approximations must be made to assign expenses to the period when services were rendered.

Certain hospital based physicians are reimbursed through the hospital, and payments are reported only on a cash basis. Again, the incurred cost must be approximated from the cash data.

*b. Analysis of historical trends:*

Table B3 summarizes the incurred reimbursement amounts per capita for the various services described through fiscal year 1975. In order to analyze the historical trends in prices and use of services, these reimbursement amounts are converted to the reasonable charges or costs on which reimbursement was based. This 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 B4 shows the covered charges per capita corresponding to the reimbursement values shown in table B3.

TABLE B3.—SUMMARY OF AGED INCURRED BENEFITS PER CAPITA

Fiscal year	All services	Physician services <sup>1</sup>	Inpatient radiology and pathology <sup>2</sup>	Outpatient hospital	Home health agencies	Group practice plans
1967.....	\$62.55	\$59.49	.....	\$1.48	\$0.77	\$0.81
1968.....	80.37	73.36	\$1.89	2.47	1.41	1.24
1969.....	94.19	79.84	6.57	4.41	1.96	1.41
1970.....	98.66	83.11	7.14	5.49	1.50	1.42
1971.....	105.90	87.91	7.21	8.16	1.10	1.52
1972.....	114.03	95.60	6.77	9.04	1.02	1.60
1973.....	123.03	101.84	6.99	11.19	1.10	1.91
1974.....	134.35	111.36	7.78	11.50	1.42	2.29
1975.....	160.53	130.59	8.56	15.89	2.78	2.71

<sup>1</sup> Includes all services on payment record (other than for inpatient radiology and pathology after 1967).

<sup>2</sup> 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 B4.—INCURRED REASONABLE CHARGES OR COSTS PER CAPITA FOR THE AGED: PAST EXPERIENCE

Fiscal year	All services	Physician services <sup>1</sup>	Inpatient radiology and pathology <sup>2</sup>	Outpatient hospital	Home health agencies	Group practice plan
1967	\$109.58	\$104.20	-----	\$2.59	\$1.37	\$1.42
1968	128.49	118.34	\$1.89	3.98	2.28	2.00
1969	146.30	127.32	6.57	7.03	3.13	2.25
1970	152.40	131.90	7.14	8.71	2.38	2.27
1971	162.14	138.00	7.21	12.81	1.73	2.39
1972	172.77	147.96	6.77	13.98	1.58	2.48
1973	187.22	158.30	6.99	17.39	1.56	2.98
1974	204.40	173.32	7.78	17.89	1.85	3.56
1975	237.90	198.29	8.56	23.57	3.38	4.10

<sup>1</sup> Includes all services paid on the basis of reasonable charges (except those for inpatient radiology and pathology after 1967).

<sup>2</sup> Includes services on payment records and those using combined billing; amounts shown are for April 1968 and later when combined billings are authorized and inpatient radiology and pathology charges are reimbursed at 100 percent.

*c. Increase in per capita reasonable charges for physician services:*

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

*(1) Charges:*

Increase in average charge per service is one of the important elements creating increasing charges per capita. The physician services component of the consumer price index provides a reasonable estimate of the increase in charges per service. Increases in this index are shown in the first column of table B5.

Bills submitted to the carriers for payment are subject to reduction (according to statute) if they exceed the median charge that the physician assessed for that particular service in the calendar year preceding the fiscal year in which the bill is submitted. (This median charge is called the "customary" charge.) Bills are subject to further reduction if they exceed the prevailing charge for the locality. (Prevailing charge is defined as the 75th percentile of customary charges for a particular service in a particular area.) The customary and prevailing charge limits maintained by the carrier are called "fee screens." Recognized fees are the charges after they have been reduced by the fee screens.

The average reduction in submitted fees has increased each year due both to deliberate administrative actions and to differentials in the rate of increase of fees between the calendar year in which the screens are established and the fiscal year in which the screens are applied. The result is that the recognized fees have grown more slowly than submitted fees. Column 2 of table B5 shows the extent to which increases in submitted fees have been reduced each year by the screens. Column 3 shows the resulting increase in recognized fees.

*(2) Residual Effects:*

Per capita charges are also increased each year as a result of more physician visits per enrollee, increasing use of specialists and more expensive techniques and other factors. Column 6 of table B5 shows the increase in charges per capita resulting from these residual causes. Because the measurement of increased recognized charges per service is subject to error, this error is also included under residual causes.

The proportion of claims that are denied for non-covered care has increased in most years. Changes in the denial rate can be identified from program data and are shown in column 5 of table B5. Thus it is possible to see the growth rate of these residual elements without the distorting effects of denial changes. This increase rate is shown in column 4 of table B5. This column is used in the projection to indicate the amount of cost increases to be expected in the future from residual causes.

The last column of table B5 shows the total increase in charges per capita for services paid through carriers. It includes the effects of all the items discussed above.

TABLE B5.—COMPONENTS OF INCREASES IN REASONABLE CHARGES PER CAPITA FOR PHYSICIAN AND MISCELLANEOUS SERVICES<sup>1</sup>

[In percent]

Fiscal year	CPI for physician's fees (1)	Effect of screens <sup>2</sup> (2)	Recognized fees (1)+(2) (3)	Residual causes (4)	Effect of denials <sup>3</sup> (5)	Net residual (4)+(5) (6)	Recognized charge (3)+(6) (7)
1968.....	5.9	-0.6	5.3	9.7	-1.4	8.3	13.6
1969.....	6.2	-1.4	4.8	3.2	-0.4	2.8	7.6
1970.....	6.7	-2.8	3.9	2.8	-3.1	-0.3	3.6
1971.....	7.5	-3.0	4.5	3.3	-3.2	0.1	4.6
1972.....	5.2	-1.2	4.0	2.8	+0.4	3.2	7.2
1973.....	2.6	-0.5	2.1	5.5	-0.6	4.9	7.0
1974.....	5.0	-1.6	3.4	6.7	-0.6	6.1	9.5
1975.....	12.8	-3.5	9.3	5.4	-0.3	5.1	14.4

<sup>1</sup> Increase over prior year.

<sup>2</sup> Change in reduction due to screen from previous to current year.

<sup>3</sup> Change in denials from previous to current year.

*d. Per capita cost increases for other services:*

The historical increases in per capita cost for physician services and for other services covered by the program are shown in table B6. The year-to-year changes in some services are quite erratic and provide little guidance to future trends in these components.

TABLE B6.—INCREASES IN REASONABLE CHARGES AND COSTS INCURRED PER CAPITA FOR THE AGED (AS RECOGNIZED BY THE PROGRAM)<sup>1</sup>

[In percent]

Year ending June 30—	Physician services <sup>2</sup>	Inpatient radiology and pathology	Outpatient hospital	Home health agencies	Group practice plans
1968.....	13.6	-----	53.7	66.4	40.8
1969.....	7.6	-13.1	76.6	37.3	12.5
1970.....	3.6	8.7	23.9	-24.0	0.9
1971.....	4.6	1.0	47.1	-27.3	5.3
1972.....	7.2	-6.1	9.1	-8.7	3.8
1973.....	7.0	3.2	24.4	-1.3	20.2
1974.....	9.5	11.3	2.9	18.6	19.5
1975.....	14.4	10.0	31.7	82.7	15.2

<sup>1</sup> Increase over prior year.

<sup>2</sup> Includes all services paid for on the basis of reasonable charges except those for inpatient professional radiology and pathology.

e. *Projected increases in recognized charges and costs per capita:*

(1) *Physician Services:*

The projection factors for the cost of physician services are shown in table B7. Column 1 shows the increase in recognized charges that are projected to result from the operation of the fee screens. As explained earlier, these screens are updated based on the experience of the calendar year preceding their implementation. After July 1, 1975, prevailing fees are to be limited by an economic index intended to represent increases in the cost of a physician's practice. There is not sufficient experience available at this time to be able to judge the final impact of this index. Presumably the effect will vary year to year depending on relative increases of recognized fees and the index itself. Based on the very limited evidence since July 1, 1975, and some information on historical values of components of the index, it is assumed that, on the average, the index will retard charge increases by about 1½ percentage points for the first two years and 2 percentage points thereafter. The residual increases through June 1976 are estimated mostly from cash flow experience through the date of this report. After that period the residuals are assumed to be close to the historical level.

TABLE B7.—COMPONENTS OF INCREASES IN REASONABLE CHARGES PER CAPITA FOR PHYSICIAN AND MISCELLANEOUS SERVICES<sup>1</sup>

[In percent]

Year ending June 30—	Actual fees with fee screens	Effect of economic index <sup>2</sup>	Recognized fees	Net residual	Recognized charges
1976.....	10.0	-1.5	8.5	5.4	13.9
1977.....	12.3	-1.5	10.8	3.3	14.1
1978.....	11.5	-2.0	9.5	3.3	12.8
1979.....	10.0	-2.0	8.0	3.2	11.2
1980.....	8.0	-2.0	6.0	3.2	9.2

<sup>1</sup> Increase over prior year.

<sup>2</sup> Percentage by which the economic index reduces the average rate of increase in recognized fees in the year.

<sup>3</sup> The effective increases are lower than those shown here because of the delay in updating the fee screens discussed in the main text of this report.

(2) *Other Services:*

Table B8 shows the projected increases in charges or costs per capita for physician services and other services. The factors for non-physician services through June 1976 are chosen to be consistent with cash-flow data through the time of this report. After that time the factors reflect historical levels of increases.

TABLE B8.—PROJECTED INCREASES IN RECOGNIZED CHARGES AND COSTS INCURRED PER CAPITA FOR THE AGED<sup>1</sup>  
[In percent]

Year ending June 30—	Physician services <sup>2</sup>	Inpatient radiology and pathology	Outpatient hospital	Home health agencies	Group practice plans
1976.....	13.9	20.0	30.0	30.0	25.0
1977.....	14.1	15.0	30.0	30.0	15.0
1978.....	12.8	15.0	30.0	30.0	15.0
1979.....	11.2	15.0	20.0	20.0	15.0
1980.....	9.2	15.0	20.0	20.0	15.0

<sup>1</sup> Increase over prior year.

<sup>2</sup> Includes all services paid on the basis of reasonable charges except those for inpatient professional radiology and pathology.

<sup>3</sup> Increase reflects update of fee screens on July 1, 1976. However, the actual update was delayed producing an average increase of 10.4 percent for the year.

(3) *Aggregate Benefits:*

Table B9 shows the per capita charges or costs for fiscal year 1976 and the projections of those charges or costs based on the assumptions in table B8.

TABLE B9.—INCURRED RECOGNIZED CHARGES AND COSTS PER CAPITA FOR THE AGED: PROJECTION

Year ending June 30—	All services	Physician services <sup>1</sup>	Inpatient radiology and pathology	Outpatient hospital	Home health agencies	Group practice plans
1976.....	\$276.27	\$225.84	\$10.27	\$30.64	\$4.39	\$5.13
1977.....	312.60	249.35	11.81	39.83	5.71	5.90
1978.....	370.12	290.55	13.58	51.78	7.42	6.79
1979.....	417.65	323.18	15.62	62.14	8.90	7.81
1980.....	465.06	352.87	17.96	74.57	10.68	8.98

<sup>1</sup> Includes all services paid on the basis of reasonable charges except those for inpatient radiology and pathology.

<sup>2</sup> This figure reflects the delay in updating the fee screens.

Table B10 shows the total reimbursement amounts per capita that result from subtracting the average amounts of copayment per period from the total covered charges in table B9.

TABLE B10.—PROJECTED BENEFITS INCURRED PER CAPITA<sup>1</sup>

Year ending June 30—	Benefits Incurred
1976.....	\$191.27
1977.....	220.45
1978.....	266.82
1979.....	305.25
1980.....	343.82

<sup>1</sup> For aged beneficiaries only.

Finally, the aggregate expenditures for aged beneficiaries are derived by multiplying average enrollment by average reimbursement for benefits. Table B11 shows this calculation. Table B11 also shows the cash outlays that result from allowing for the lag between time of service and time of payment.

TABLE B11.—PROJECTION OF AGGREGATE INCURRED BENEFITS AND CASH BENEFITS PAID FOR THE AGED

Year ending June 30—	Average enrollment (millions)	Benefits incurred		Fiscal year	Aggregate benefits paid (millions)
		Per capita	Aggregate (millions)		
1976.....	21,991	\$191.27	\$4,208	1976	\$3,970
1977.....	22,407	220.45	4,939	(1)	1,046
1978.....	22,808	266.82	6,086	1977	4,980
1979.....	23,201	305.25	7,082	1978	6,008
1980.....	23,600	343.82	8,114	1979	7,042

<sup>1</sup> Interim.

### 3. COST ESTIMATES FOR THE DISABLED AND PERSONS SUFFERING FROM CHRONIC KIDNEY DISEASE

Persons who have been entitled to disability insurance benefits for at least 2 years and certain persons suffering from chronic kidney disease have been eligible for part B coverage since July 1973.

Sufficient data pertaining to the experience of these beneficiaries is now available to reconstruct their incurred costs for fiscal year 1975 with a reasonable degree of reliability. However, the experience has not matured enough to detect cost patterns from historical series. Therefore, projections for disabled beneficiaries (except for those suffering with chronic kidney disease) are based on the same projection factors used for the aged (except for population) after fiscal year 1975. The estimates for the chronic kidney disease program assume per capita cost increases of 10 percent annually and a continued rapid increase in enrollment as shown in table B12. The combined projections for beneficiaries eligible to enroll because they have been receiving disability insurance cash benefits for at least 2 years are shown at the top of table B12. This includes some persons with chronic kidney disease. The projections for those beneficiaries entitled only on the basis of chronic kidney disease are shown at the bottom of table B12.

TABLE B12.—PROJECTION OF AGGREGATE INCURRED BENEFITS AND CASH BENEFITS PAID FOR DISABLED ENROLLEES AND THOSE WITH CHRONIC KIDNEY DISEASE

Year ending June 30—	Average enrollment (thousands)	Benefits incurred		Fiscal year	Aggregate benefits paid (millions)
		Per capita	Aggregate (millions)		
<b>A. Disabled enrollees:</b>					
1974.....	1,642	\$145.55	\$239	1974	\$162
1975.....	1,824	212.72	388	1975	348
1976.....	2,032	269.19	547	1976	503
1977.....	2,220	322.07	715	(1)	155
1978.....	2,392	391.72	937	1977	722
1979.....	2,549	453.51	1,156	1978	931
1980.....	2,700	517.04	1,396	1979	1,154
<b>B. Enrollees entitled because of chronic kidney disease:</b>					
1974.....	8	11,125.00	89	1974	78
1975.....	11	13,363.64	147	1975	132
1976.....	15	14,400.00	216	1976	198
1977.....	18	16,444.44	296	(1)	67
1978.....	21	18,285.71	384	1977	297
1979.....	23	20,869.57	480	1978	386
1980.....	25	23,280.00	582	1979	481

<sup>1</sup> Interim.

## 4. ADMINISTRATIVE EXPENSES

In developing incurred administrative expenses, it is assumed that the expense required to settle incurred but unpaid claims will be approximately the same on a percentage basis as required to settle paid claims. The projected cash administrative expenses are shown in table B13 and the historical and projected ratios of paid administrative expenses to paid claims in table B14.

TABLE B13.—PROJECTED ADMINISTRATIVE EXPENSES PAID IN FISCAL YEARS, 1976-79

Fiscal year:	In millions
1976.....	\$529
Interim.....	133
1977.....	507
1978.....	598
1979.....	636

TABLE B14.—RATIO OF ADMINISTRATIVE EXPENSES TO BENEFIT PAYMENTS

Fiscal year	Cash basis
Actual experience (for all enrollees):	
1967.....	. 202
1968.....	. 103
1969.....	. 119
1970.....	. 110
1971.....	. 122
1972.....	. 128
1973.....	. 103
1974.....	. 142
1975.....	. 107
1976.....	. 113
Interim.....	. 105
Projected (for all enrollees):	
1977.....	. 085
1978.....	. 082
1979.....	. 073