SOCIETY OF ACTUARIES

Article from:

Pension Section News

October 1999 – Issue No. 41

SMI Trust Fund:

Estimates under Alternative II Assumption for Aged and Disabled (Excluding End-Stage Renal Disease) Enrollees

Editor's Note: The following except is taken from Section II.F, "Actuarial Methodology and Principal Assumptions for Cost Estimates for the Supplementary Medical Insurance Program," in the 1999 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund. *Copies of the SMI 1999 Annual Report are available from Sol Mussey (410-786-6386).*

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This section describes the basic methodology and assumptions used in the estimates for the SMI program under the intermediate assumptions. In addition, projections of program costs under two alternative sets of assumptions are presented. The methodology and data sources underlying the SMI projections in this year's report have been substantially modified and enhanced. Consequently, the discussion in this section and the data and estimates shown differ from the corresponding material in prior reports.

Assumptions

The economic and demographic assumptions underlying the projections shown in this report are consistent with those in the 1999 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. These assumptions are described in more detail in that report.

Program Cost Projection Methodology

Estimates under the intermediate assumptions are prepared by establishing the allowed charges or costs incurred per enrollee, for each category of enrollee and for each type of service, for a recent year to serve as a projection base and then projecting these charges through the estimation 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.

Projection Base

To establish a suitable base from which to project the future costs of the program, the incurred payments for services provided must be reconstructed for the most recent period for which a reliable determination can be made. To do this, payments to providers must be attributed to dates of service, rather than payment dates. In addition, the nonrecurring effects of any changes in regulations, legislation, or administration of the program and any items affecting only the timing and flow of payments to providers must be eliminated. As a result, the rates of increase in the incurred cost of the program differ from the increases in cash disbursements.

Carrier Services

Reimbursement amounts for physician services, durable medical equipment (DME), laboratory tests performed in physician offices and independent laboratories, and other services such as free-standing ambulatory surgical center facility services, ambulance, and supplies are paid though organizations acting for HCFA, referred to as "carriers." The carriers determine whether billed services are covered under the program and determine the allowed charges for the services. A record of the allowed charges, the applicable deductible and coinsurance, and the amount reimbursed after the reduction for coinsurance and the deductible is transmitted to HCFA.

The data is tabulated on an incurred basis. This is necessary to meet the statutory requirement that the program be financed on this basis.

As a check on the validity of the projection base, incurred reimbursement amounts are compared with cash expenditures reported by carriers through an independent reporting system. In a healthcare 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 therefore.

Intermediary Services

Reimbursements amounts for institutional services under the SMI program are paid by the same fiscal intermediaries that pay for HI services. Institutional services covered under the SMI program are outpatient hospital services, home health agency services, laboratory services performed in hospital outpatient departments, and other services such as renal dialysis performed in free-standing dialysis facilities, services in outpatient rehabilitation facilities, and services in rural health clinics.

Reimbursement for institutional services occur in two stages. First, bills are submitted to the intermediaries, and

interim payments are made on the basis of these bills. The second stage occurs at the close of a provider's accounting period, when a cost report is submitted, and lump-sum payments or recoveries are made to correct for the difference between interim payments and final settlement amounts for providing covered services (net of coinsurance and deductible amounts). Tabulations of the bills are prepared by date of service and the lump-sum settlements, which are reported on a cash basis, are adjusted (using approximations) to allocate them to the time of service.

Managed Care Services
Managed care plans with contracts to provide health services to Medicare beneficiaries are not reimbursed through carriers or intermediaries but instead are reimbursed directly by HCFA on either a reasonable cost or capitation basis. Comprehensive data on such direct reimbursements are available only on a cash basis. Certain approximations must be made to allocate expenses to the period when services were rendered.

Fee-for-Service Payments for Aged Enrollees and Disabled Enrollees without End-Stage Renal Disease (ESRD)

Disabled persons with ESRD have per enrollee costs which are substantially 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. Similarly, costs associated with beneficiaries enrolled managed care plans are discussed separately.

1) Carrier Services
   a) Physician Services

Charges for physician services per fee-for-service enrollee are affected by a variety of factors. One factor, the increase in average charge per service, can be identified explicitly. Others can be recognized only by the fact that the increase in the average charge per service does not explain all of the increase in per enrollee charges year-to-year. Each of these categories will be discussed in turn.

Prior to 1992, bills submitted to the carriers during a specified "fee-screen year" were subject by statute to certain limitations on the level of fees to be allowed by the program for reimbursement purposes. The fee level allowed for a particular service by a physician was subject to reduction if it exceeded the median charge that the physician assessed for the same service in a prior base period. This median charge was called the "customary charge." Fees were subject to further reduction if they exceeded the prevailing charges for the locality (defined as the 75th percentile of customary charges for a particular service in a particular locality). Starting July 1, 1975, the rate of increase in prevailing charges was limited further by the application of the Medicare Economic Index (MEI). The customary and prevailing charge limits maintained by the carriers were called "fee screens." Allowed charges were charges after application of the fee screens and were the charges on which reimbursement was based.

Public Law 101-239 provided for the replacement of customary and prevailing charges with fee schedules for physician services starting in 1992. The fee schedules are based on a resource-based relative value scale. The fee schedule amount is equal to the product of the procedure's relative value, a conversion factor, and a geographic adjustment factor. Payments are based on the lower of the actual charge and the fee schedule amount. For the 4-year period from 1992 to 1995, the fee schedule amounts were adjusted to reflect the prevailing charges in each fee screen area, to phase in the new payment system. Increases in physician fees are based on growth in the MEI, plus a performance adjustment reflecting whether past growth in the volume and intensity of services met specified targets.

As a result of the Balanced Budget Act of 1997, beginning in 1999, the MEI is adjusted to match spending under a sustainable growth rate (SGR) mechanism. It should be noted that the SGR process enacted as part of the Balanced Budget Act of 1997 contains technical deficiencies that, if not corrected, would cause unstable performance adjustments for physician fee updates in 1999 and later. For purposes of the estimates shown in this report, "expected values" of the performance adjustments are estimated, representing the *average* performance adjustments expected over the projection period. (In practice, without corrective legislation, actual performance adjustments would oscillate randomly between the legislated limits of +3 and -7 percent; prediction of specific year-by-year adjustments is thus impossible.)

Table II.F1 (see page 20) shows the projected MEI increases and average performance adjustments for 2000 through 2008. The physician fee updates shown through 1999 are actual values. The net increase in allowed fees shown in column 3 reflects the growth in the MEI, the performance adjustment, as well as any legislative impacts.

Per capita physician charges also have increased each year as a result of a number of other factors besides fee increases, including more physician visits per enrollee, the aging of the Medicare enrollment, greater use of specialists and more expensive techniques, and certain administrative actions. The fourth column of table II.F1 shows the increases in charges per enrollee resulting from these residual causes. Because the measurement of increased allowed charges per service is subject to error, this error is included implicitly under residual causes.

Based on the increases in table II.F1, table II.F2 (not included here) shows the estimates of the incurred reimbursement for physician services per fee-for-service enrollee. Table II.F1 shows the increases in the allowed charges per fee-for-service enrollee for DME, laboratory services, and other carrier services. Based on the increases in table II.F1, table II.F2 (not included here) shows the corresponding estimates of the incurred reimbursement for these services per fee-for-service enrollee.

(2) Intermediary Services

Originally, all intermediary services were reimbursed on a "reasonable cost"

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TABLE II.F1
Components of Increases in Total Allowed Charges Per Fee-for-Service Enrollee for Carrier Services (in percent)

	Physician Fee Schedule								
	Increase Due to Price Changes								
Calendar year	MEI	MPA[1]	Net increase in allowed fees[2]	Residual factors	Total increase[3]	CPI	DME	Lab	Other carrier
Aged:									
1996	2.0	-1.2	0.8	1.2	2.0	2.8	11.9	-8.6	4.7
1997	2.0	-1.4	0.6	4.7	5.4	2.7	11.6	-2.0	7.6
1998	2.2	1.2	2.3	1.9	4.3	2.3	-3.7	1.8	5.7
1999	2.3	0.0	2.3	4.8	7.2	2.3	5.3	1.5	4.8
2000	2.2	-0.5	1.6	5.3	7.0	2.1	5.9	2.8	4.9
2001	1.6	-3.4	-1.8	4.2	2.3	2.5	5.3	3.8	5.1
2002	1.7	-3.5	-1.9	4.3	2.3	2.6	5.2	3.9	5.1
2003	1.7	-3.2	-1.6	4.3	2.6	2.7	6.8	5.9	5.8
2004	2.0	-3.1	-1.2	4.3	3.1	3.0	7.2	6.2	6.1
2005	2.0	-3.2	-1.3	4.5	3.1	3.1	7.3	6.3	6.2
2006	2.1	-3.1	-1.0	4.4	3.3	3.2	7.4	6.4	6.3
2007	2.2	-2.9	-0.7	4.3	3.5	3.3	7.5	6.5	6.4
2008	2.3	-3.0	-0.7	4.3	3.5	3.3	7.5	6.5	6.4
Disabled (excluding ERSD)									
1996	2.0	-1.2	0.8	-0.3	0.5	2.8	7.5	-9.3	1.0
1997	2.0	-1.4	0.6	4.1	4.7	2.7	13.8	-4.3	2.1
1998	2.2	1.2	2.3	2.3	4.6	2.3	-2.8	1.1	4.4
1999	2.3	0.0	2.3	2.1	4.5	2.3	5.3	-0.4	5.2
2000	2.2	-0.5	1.6	2.6	4.2	2.1	5.8	1.3	5.8
2001	1.6	-3.4	-1.8	5.8	3.9	2.5	5.3	4.6	5.5
2002	1.7	-3.5	-1.9	7.1	5.0	2.6	5.2	5.5	4.8
2003	1.7	-3.2	-1.6	4.7	3.1	2.7	6.8	6.2	5.7
2004	2.0	-3.1	-1.2	4.2	2.9	3.0	7.1	6.2	6.1
2005	2.0	-3.2	-1.3	4.2	2.9	3.1	7.2	6.2	6.1
2006	2.1	-3.1	-1.0	4.1	3.1	3.2	7.3	6.3	6.2
2007	2.2	-2.9	-0.7	4.1	3.3	3.3	7.4	6.4	6.3
2008	2.3	-3.0	-0.7	4.1	3.3	3.3	7.4	6.5	6.3

[1] Medicare performance adjustment
[2] Reflects the growth in the MEI, the performance adjustment, as well as any legislative impacts.
[3] Equals combined increases in allowed fees and residual factors.

basis. The reasonable costs for a particular provider were the provider's aggregate costs associated with SMI beneficiaries. While the provider does not have costs per service, the provider does have a charge for each service. These charges were used to determine any beneficiary deductible or coinsurance liability. The SMI reimbursement would be the difference between the lower of the provider's reasonable costs or aggregate SMI charges and the aggregate amounts collected by the provider for any associated deductible and coinsurance payments.

Over the years legislation modified this reimbursement mechanism for various types of services. Beginning July 1, 1984 the same laboratory fee schedule established for tests performed in physician offices and independent laboratories also applied to laboratories in hospital outpatient departments, but with slightly higher rates. Subsequent legislation made the two fee schedules identical. The Balanced Budget Act of 1997 implemented a prospective payment system for

TABLE II.F3
Components of Increases in Recognized Charges and Costs Per Fee-for-Service Enrollee for Intermediary Services (in percent)

Calendar year	Outpatient hospital	Home health agency[1]	Outpatient lab	Other intermediary
Aged:				
1996	8.7	10.0	6.9	22.6
1997	7.7	2.1	7.1	14.9
1998	-0.5	3748.5[2]	15.3	5.3
1999	9.5	6.3	5.2	8.3
2000	9.9	7.5	4.9	9.5
2001	2.9	5.0	4.5	9.3
2002	8.2	7.2	4.5	9.3
2003	8.9	6.4	8.1	9.3
2004	9.3	6.0	8.4	9.3
2005	9.4	5.8	8.6	9.3
2006	9.5	5.6	8.7	9.3
2007	9.6	5.0	8.7	9.3
2008	9.6	4.3	8.7	9.3
Disabled (excluding ERSD)				
1996	8.4	0.0	0.7	29.5
1997	6.6	0.0	-0.4	34.6
1998	-4.5	(2)	30.8	6.4
1999	5.1	7.2	6.3	8.2
2000	6.5	6.5	6.1	9.4
2001	5.5	4.3	6.0	9.2
2002	12.0	6.3	6.0	9.3
2003	9.3	5.6	8.1	9.2
2004	9.2	5.1	8.4	9.2
2005	9.2	5.0	8.5	9.2
2006	9.2	4.9	8.6	9.3
2007	9.5	4.9	8.7	9.3
2008	9.5	5.1	8.7	9.3

[1] From July 1, 1981 to December 31, 1997, home health agency services were almost exclusively provided by the Medicare HI program. However, for those SMI enrollees not entitled to HI, the coverage of these services was provided by the SMI program. During that time, since all SMI disabled enrollees were entitled to HI, their coverage of these services was provided by the HI program. The extreme variation in SMI home health cost increases is largely attributable to random fluctuations in a service used by relatively few beneficiaries. (See Table II.F4 not shown).
[2] Effective January 1, 1998, the coverage of a majority of home health agency services for those individuals entitled to HI and enrolled in SMI was transferred from the HI program to the SMI program. As a result, as of January 1, 1998, there was a large increase in SMI expenditures for these services for the aged enrollees, and SMI coverage for these services resumed for disabled enrollees.

services performed in the outpatient department of a hospital, which is expected to begin sometime in 2000. It also implemented a prospective payment system for home health agency services, which is expected to begin October 1, 2000.

The historical and projected increases in charges and costs per fee-for-service enrollee for intermediary services are shown in table II.F3 (see page 21). The projected increases shown in table II.F3 reflect the impact of the provisions of the Balanced Budget Act of 1997. These include the transfer of a majority of home health agency services from the HI trust fund to the SMI trust fund starting in 1998. All benefit payments for those home health agency services being transferred are to be paid out of the SMI trust fund beginning January 1998. However, for the 6-year period 1998 through 2003, sums of money will also be transferred from the HI trust fund to the SMI trust fund to phase in the financial impact of the transfer of these services. It should be noted that in table II.F3, and elsewhere in this section with the exception of table II.F7 (not shown), the estimates for home health agency costs for 1998 through 2003 are the gross amounts associated with the payment of benefits and are not adjusted for the funds transferred from the HI trust fund.

Based on the increases in table II.F3, table II.F4 (not included here) shows the estimates of the incurred reimbursement for the various intermediary services per fee-for-service enrollee. Each of these expenditure-categories is projected based on recent past trends in growth per enrollee, together with applicable legislated limits on payment updates.

Managed Care Costs

Program experience with managed care payments has shown a strong upward trend in recent years, reflecting rapid increases in the number of Medicare

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beneficiaries choosing to enroll in managed care plans. Enrollment has increased most rapidly in the capitated plans which currently account for approximately 95 percent of the managed care payments. For capitated plans, per capita amounts have grown following the same trend as fee-for-service per capita growth, based on the formula in the law to calculate managed care capitation amounts. The projection of future per capita amounts follows the requirements of the Balanced Budget Act of 1997 as related to the Medicare+Choice capitation amounts, which increase at rates based on the per capita growth for all of Medicare, less specified adjustments in 1998 to 2002.

The increases in managed care were quite large in the early 1980s but slowed in the late 1980s. Since then rapid growth has been occurring again. The projection of these increases assumes high enrollment growth in the next few years as additional Medicare+Choice plans become available and the enrollment process becomes more straightforward and then more modest increases based on growth in Medicare total enrollment after that.

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