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# SMI Trust Fund

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

*Editor's Note: The following excerpt is taken from Section III.B, "Actuarial Methodology and Principal Assumptions for Cost Estimates for the Supplementary Medical Insurance Program," in the 2003 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. All questions on the Medicare Trustees Report should be emailed to dmmce@cms.hhs.gov. To expedite this process, please mention "Trustees Report" in your request.*

This section describes the basic methodology and assumptions used in the estimates for the HI and SMI trust funds under the intermediate assumptions. In addition, projections of HI and SMI costs under two alternative sets of assumptions are presented.

### Assumptions

The economic and demographic assumptions underlying the projections of HI and SMI costs shown in this report are consistent with those in the 2004 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.

### Cost Projection Methodology

Estimates under the intermediate assumptions are calculated separately for each category of enrollee and for each type of service. The estimates are prepared by establishing the allowed charges or costs incurred per enrollee 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 expenditures, an allowance is made for the delay between receipt of, and payment for, the service.

#### (1) Projection Base

To establish a suitable base from which to project the future Part B costs, the incurred payments for services provided must be reconstructed for the most recent period for which a reliable determination can be made. Therefore, payments to providers must be attributed to dates of service, rather than to payment dates; in addition, the nonrecurring effects of any changes in regulations, legislation or administration, and of any items affecting only the timing and flow of payments to

providers, must be eliminated. As a result, the rates of increase in the Part B incurred cost differ from the increases in cash expenditures.

### 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 physician-administered drugs, free-standing ambulatory surgical center facility services, ambulance, and supplies) are paid through organizations acting for the Centers for Medicare & Medicaid Services (CMS). These organizations, referred to as "carriers," determine whether billed services are covered under Part B and establish the allowed charges for covered services. A record of the allowed charges, the applicable deductible and coinsurance, and the amount reimbursed after reduction for coinsurance and the deductible is transmitted to CMS.

The data are tabulated on an incurred basis. As a check on the validity of the projection base, incurred reimbursement amounts are compared with cash expenditures reported by the carriers through an independent reporting system.

### Intermediary Services

Reimbursement amounts for institutional services under Part B are paid by the same "fiscal intermediaries" that pay for HI services. Institutional care covered under Part B includes 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).

Currently, there are separate payment systems for almost all the Part B institutional services. For these systems, the intermediaries determine whether billed services are covered under Part B and establish the allowed payment for covered services. A record of the allowed payment, the applicable deductible and coinsurance, and the amount reimbursed after reduction for coinsurance and the deductible is transmitted to CMS.

For those services still reimbursed on a reasonable-cost basis, the costs for covered services are determined on the basis of provider cost reports. Reimbursement for these services occurs in two stages. First, bills are submitted to the intermediaries, and interim payments are made on the basis of these bills. The second stage takes place 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

(continued on page 18)

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 only 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 reimbursed directly by CMS 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.



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

Disabled persons with end-stage renal disease (ESRD) have per-enrollee costs that are substantially higher and quite different in nature from those of most other disabled persons. Hence, Part B costs for them have been excluded from the analysis in this section and are contained in a later section. Similarly, costs associated with beneficiaries enrolled in managed care plans are discussed separately.

### Physician Services

Medicare payments for physician services are based on a fee schedule, which reflects the relative level of resources required for each service. 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. Increases in physician fees are based on growth in the Medicare Economic Index (MEI),<sup>1</sup> plus a performance ad-

<sup>1</sup>The MEI is a measure of inflation in physician practice costs and general wage levels.

justment reflecting whether past growth in the volume and intensity of services met specified targets under the sustainable growth rate mechanism. Table III.B1 shows the projected MEI increases and performance adjustments for 2005 through 2013. The physician fee updates shown through 2004 are actual values. The modified update shown in column four reflects the growth in the MEI, the performance adjustment and legislative impacts, such as the addition of preventative services.

The projected physician fee schedule expenditures should be considered unrealistically low due to the current law structure of physician payment updates under the sustainable growth rate system (SGR). The SGR requires that future physician payment increases be adjusted for past actual physician spending relative to a target spending level. Consequently, the system would have led to large negative reductions in physician fee schedule rates for 2004 and 2005. To avoid these reductions, the Medicare Modernization Act (MMA) established minimum updates of 1.5 percent for 2004 and 2005. However, the target spending level was not adjusted, and actual physician expenditures, therefore, are expected to continue to exceed the SGR targets. This situation causes projected physician updates to be about -5 percent for seven consecutive years, beginning in 2006. The result is a cumulative reduction in the payment rates for physician services of more than 31 percent from 2005 to 2012. In contrast, the MEI is expected to increase by 19 percent over the same time frame. Multiple years of significant reductions in physician payments per service are very unlikely to occur before legislative changes intervene, but these payment reductions are required under the current law SGR system and are included in the physician fee schedule projections.

Per capita physician charges also have changed 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 population, greater use of specialists and more expensive techniques and certain administrative actions. The fifth column of table III.B1 shows the increases in charges per enrollee resulting from these residual factors. 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 III.B1, table III.B2 shows the estimates of the incurred reimbursement for carrier services per fee-for-service enrollee.

### DME, Laboratory and Other Carrier Services

As with physician services, over time unique fee schedules or reimbursement mechanisms have been established for virtually all other non-physician carrier services. Table III.B1 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 III.B1, table III.B2 shows

Table III.B1—Components of Increases in Total Allowed Charges per Fee-for-Service Enrollment for Carrier Services (in percent)

Calendar year	Physician fee schedule					Total increase <sup>4</sup>	CPI	DME	Lab	Other carrier
	Increase due to price changes				Residual factors					
	MEI	MPA <sup>1</sup>	Physician update <sup>2</sup>	Modified update <sup>3</sup>						
Aged:										
1993	2.7	-1.3	1.4 <sup>5</sup>	1.4	-1.5	-0.1	2.8	20.1	2.6	7.2
1994	2.3	7.0	7.0 <sup>5</sup>	6.8	1.3	8.2	2.5	7.7	-2.7	9.5
1995	2.1	7.5	7.5 <sup>5</sup>	7.3	1.5	8.9	2.9	16.1	-4.0	5.4
1996	2.0	-1.2	0.8 <sup>5</sup>	0.8	-0.1	0.7	2.9	6.1	-8.0	13.7
1997	2.0	-1.4	0.6 <sup>5</sup>	0.6	3.7	4.3	2.3	12.0	-5.2	14.9
1998	2.2	1.2	2.3 <sup>5</sup>	2.8	1.4	4.2	1.3	-2.1	-9.3	10.1
1999	2.3	0.0	2.3	2.6	1.4	4.1	2.2	5.2	0.1	10.9
2000	2.4	3.0	5.5	5.8	3.8	9.8	3.5	10.4	7.7	14.4
2001	2.0	3.0	4.8	5.2	4.2	9.6	2.7	12.8	7.0	16.1
2002	2.6	-7.0	-4.8	-4.0	5.7	1.5	1.4	13.6	7.5	16.7
2003	3.0 <sup>6</sup>	-1.1 <sup>6</sup>	1.7 <sup>6</sup>	1.5	4.4	5.9	2.3	14.7	6.2	14.8
2004	2.9	-1.4	1.5	3.8	3.0	7.0	1.2	-2.7	4.2	9.0
2005	2.7	-1.2	1.5	1.5	3.4	5.0	1.5	-0.6	6.5	12.0
2006	1.9	-7.0	-5.2	-5.2	5.3	-0.2	2.0	4.1	3.3	13.2
2007	2.2	-7.0	-5.0	-5.7	5.5	-0.5	2.4	4.4	2.9	12.5
2008	1.8	-7.0	-5.3	-5.4	5.3	-0.4	2.7	4.5	2.8	12.1
2009	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	0.2	5.4	11.2
2010	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.1	5.4	10.0
2011	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.0	5.4	9.0
2012	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.1	5.4	8.8
2013	2.3	-4.3	-2.1	-2.1	3.0	-1.9	0.8	2.8	6.0	8.8
Disabled (excluding ESRD):										
1993	2.7	-1.3	1.4 <sup>5</sup>	1.4	6.4	7.9	2.8	18.0	5.5	30.4
1994	2.3	7.0	7.0 <sup>5</sup>	6.8	4.7	11.8	2.5	7.2	0.5	0.1
1995	2.1	7.5	7.5 <sup>5</sup>	7.3	1.2	8.5	2.9	18.2	-2.3	3.9
1996	2.0	-1.2	0.8 <sup>5</sup>	0.8	-1.2	-0.4	2.9	4.8	0.0	8.8
1997	2.0	-1.4	0.6 <sup>5</sup>	0.6	1.5	2.1	2.3	14.7	-4.5	7.9
1998	2.2	1.2	2.3 <sup>5</sup>	2.8	2.0	4.9	1.3	2.7	-5.9	10.9
1999	2.3	0.0	2.3	2.6	-0.1	2.5	2.2	1.6	2.1	10.1
2000	2.4	3.0	5.5	5.8	1.9	7.8	3.5	9.2	2.7	10.3
2001	2.0	3.0	4.8	5.2	5.0	10.5	2.7	14.6	8.1	18.9
2002	2.6	-7.0	-4.8	-4.0	8.2	3.9	1.4	21.3	12.3	22.5
2003	3.0 <sup>6</sup>	-1.1 <sup>6</sup>	1.7 <sup>6</sup>	1.5	5.3	6.8	2.3	16.2	7.8	21.4

<sup>1</sup>Medicare performance adjustment.

<sup>2</sup>Reflects the growth in the MEI, the performance adjustment and legislation that impacts the physician fee schedule update. The legislative impacts are -2.3 percent in 1994, -2.1 percent in 1995, -1.1 percent in 1998 and -0.2 percent in 2001-2003. For 2004 and 2005, the Medicare modernization act established a minimum update of 1.5 percent.

<sup>3</sup>Reflects the growth in the MEI, the performance adjustment and all legislation affecting physician services, for example, the addition of new preventative services enacted in 1997 and 2000. The legislative impacts would include those listed in footnote 2.

<sup>4</sup>Equals combined increases in allowed fees and residual factors.

<sup>5</sup>For this year there were separate updates for surgery, primary care and other physician services. This value is the weighted average of these updates.

<sup>6</sup>The physician payment price changes for 2003 occurred on March 1, 2003.

(continued on page 20)

Table III.B1—continued

Calendar year	Physician fee schedule				Residual factors	Total increase <sup>4</sup>	CPI	DME	Lab	Other carrier
	Increase due to price changes									
	MEI	MPA <sup>1</sup>	Physician update <sup>2</sup>	Modified update <sup>3</sup>						
2004	2.9	-1.4	1.5	3.8	3.0	6.9	1.2	-2.8	4.1	8.5
2005	2.7	-1.2	1.5	1.5	3.4	4.9	1.5	-0.6	6.3	10.6
2006	1.9	-7.0	-5.2	-5.2	5.2	-0.3	2.0	4.0	2.9	11.6
2007	2.2	-7.0	-5.0	-5.7	5.4	-0.6	2.4	4.4	2.7	11.2
2008	1.8	-7.0	-5.3	-5.4	5.2	-0.5	2.7	4.5	2.7	11.1
2009	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	0.1	5.3	10.4
2010	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.1	5.4	9.5
2011	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.0	5.4	8.7
2012	2.4	-7.0	-4.8	-4.8	3.0	-1.9	2.8	6.1	5.4	8.5
2013	2.3	-4.3	-2.1	-2.1	3.0	0.8	2.8	6.0	5.4	8.5

the corresponding estimates of the average incurred reimbursement for these services per fee-for-service enrollee. The fee schedules for each of these expenditure categories are updated by increases in the CPI, together with applicable legislated limits on payment updates. In addition, per capita charges for these expenditure categories have grown as a result of a number of other factors, including increased number of services provided, the aging of the Medicare population, more expensive services and certain administrative actions. This growth is projected based on recent past trends in growth per enrollee.

### Intermediary Services

Over the years, legislation has been enacted to establish new payment systems for virtually all Part B intermediary services. A fee schedule was established for tests performed in laboratories in hospital outpatient departments. The Balanced Budget Act of 1997 (BBA) implemented a prospective payment system (PPS), which began August 1, 2000, for services performed in the outpatient department of a hospital. It also implemented a PPS for home health agency services, which began October 1, 2000.

The historical and projected increases in charges and costs per fee-for-service enrollee for intermediary services are shown in table III.B3.

Based on the increases in table III.B3, table III.B4 (not shown) shows the estimates of the incurred reimbursement for the various intermediary services per fee-for-service enrollee. Each of these expenditure categories is projected on the basis of recent past trends in growth per enrollee, together with applicable legislated limits on payment updates.

### (3) Fee-for-Service Payments for Persons with End-Stage Renal Disease

See SMI 2004 Annual Report.

### (4) Managed Care Costs

Part B experience with managed care payments has generally shown a strong upward trend. However, in recent years, there has been a slowdown in the number of Medicare beneficiaries choosing to enroll in managed care plans—and, in 2001, 2002 and 2003, an overall reduction in this number. Capitated plans currently account for approximately 95 percent of all SMI managed care payments. For capitated plans, per capita payment amounts have grown, following the same trend as fee-for-service per capita cost growth, based on the formula in the law to calculate capitation amounts. The projection of future per capita amounts follows the requirements of the Medicare Modernization Act (MMA) and the Balanced Budget Act of 1997 in regard to the Medicare Advantage capitation amounts, which increase at rates based on the per capita growth for all of Medicare and, beginning in 2006, on the amounts bid by Medicare Advantage plans. Table III.B6 shows the estimated number of Part B beneficiaries enrolled in a managed care plan and the aggregate incurred reimbursements associated with those enrollees.

A substantial increase in Medicare Advantage enrollment is projected in 2006 as the provisions of the MMA give higher payments to Medicare Advantage plans. The higher payments provide incentives for expansion of coverage areas and for the provision of additional benefits to plan enrollees. In addition, preferred provider plan demonstrations are being conducted from 2003 through 2005 that will increase total managed care enrollment for those years, and regional preferred provider plans are beginning in 2006 and later.

### (5) Administrative Expenses

The ratio of administrative expenses to benefit payments has declined to about 2 percent in recent years and is projected to continue to decline in future years. Projections of administrative costs are based on estimates of changes in average annual wages. ♦

Table III.B2—Incurred Reimbursement Amounts per Fee-for-Service Enrollee for Carrier Services					
Calendar year	Fee-for-service enrollment [millions]	Physician fee schedule	DME	Lab	Other carrier
Aged:					
1992	28.469	\$832.98	\$71.84	\$90.09	\$106.71
1993	28.683	\$834.94	\$87.49	\$92.30	\$118.65
1994	28.657	\$908.50	\$94.76	\$89.78	\$130.30
1995	28.387	\$992.64	\$109.77	\$86.36	\$137.56
1996	27.807	\$999.97	\$116.26	\$79.50	\$156.39
1997	27.040	\$1,038.17	\$130.43	\$75.28	\$179.81
1998	26.267	\$1,090.24	\$127.51	\$68.25	\$198.31
1999	25.983	\$1,135.06	\$133.80	\$68.38	\$217.79
2000	26.161	\$1,251.53	\$148.00	\$72.90	\$251.51
2001	26.976	\$1,348.78	\$164.31	\$76.84	\$285.80
2002	27.647	\$1,348.85	\$176.63	\$79.34	\$319.18
2003	27.957	\$1,326.20	\$186.78	\$81.95	\$352.35
2004	28.277	\$1,317.93	\$198.86	\$86.15	\$390.68
2005	28.648	\$1,336.97	\$211.16	\$90.73	\$431.11
2006	28.931	\$1,380.01	\$224.56	\$95.73	\$473.10
2007	29.324	\$1,439.46	\$239.00	\$101.10	\$515.72
2008	29.784	\$1,505.34	\$254.38	\$106.76	\$559.64
2009	30.250	\$1,567.22	\$270.77	\$112.74	\$607.42
2010	30.668	\$1,618.00	\$288.25	\$119.04	\$659.45
2011	31.190	\$1,659.73	\$306.91	\$125.69	\$716.14
Disabled (excluding ESRD):					
1992	3.026	\$631.57	\$96.66	\$64.00	\$89.54
1993	3.243	\$686.00	\$115.34	\$67.41	\$121.28
1994	3.470	\$771.40	\$124.24	\$67.73	\$121.61
1995	3.643	\$837.99	\$146.84	\$66.36	\$126.65
1996	3.777	\$834.81	\$153.54	\$66.46	\$137.88
1997	3.840	\$854.52	\$176.59	\$63.51	\$148.72
1998	3.918	\$896.18	\$181.17	\$59.72	\$165.10
1999	4.020	\$929.33	\$185.83	\$61.45	\$183.09
2000	4.129	\$1,028.31	\$208.71	\$64.56	\$206.28
2001	4.337	\$1,109.26	\$234.36	\$68.91	\$239.03
2002	4.540	\$1,112.24	\$251.99	\$71.77	\$268.13
2003	4.677	\$1,092.71	\$266.32	\$74.06	\$295.50
2004	4.833	\$1,085.41	\$283.42	\$77.81	\$327.25
2005	4.989	\$1,100.63	\$300.84	\$81.91	\$360.77
2006	5.131	\$1,135.70	\$319.82	\$86.40	\$395.60
2007	5.269	\$1,184.31	\$340.29	\$91.21	\$431.00
2008	5.397	\$1,238.12	\$362.11	\$96.30	\$467.49
2009	5.524	\$1,288.64	\$385.35	\$101.67	\$507.20
2010	5.653	\$1,330.00	\$410.14	\$107.34	\$550.43
2011	5.774	\$1,364.06	\$436.59	\$113.33	\$597.53

Table III.B3—Components of Increase in Recognized Charges and Costs per Fee-for-Service Enrollee for Intermediary Services (in percent)				
Calendar year	Outpatient hospital	Home health agency <sup>1</sup>	Outpatient lab	Other intermediary
Aged:				
1993	7.1	19.2	4.6	26.2
1994	9.0	22.6	7.6	19.2
1995	10.3	23.1	0.7	20.2
1996	8.8	8.0	5.9	17.8
1997	7.4	1.6	8.7	12.0
1998	-1.4	2,990 <sup>2,3</sup>	4.1	-4.0
1999	9.7	-1.3 <sup>2,3</sup>	12.8	-20.8
2000	-0.6	15.1 <sup>3</sup>	5.4	19.7
2001	12.5	-50.6 <sup>3</sup>	0.6	14.2
2002	-1.3	5.8 <sup>3</sup>	13.0	20.6
2003	4.9	-2.1 <sup>3</sup>	6.8	3.8
2004	5.6	6.5	4.7	8.2
2005	6.8	6.2	7.1	9.0
2006	7.2	7.6	3.4	4.2
2007	7.7	7.1	0.6	6.1
2008	7.8	6.2	3.2	5.0
2009	7.8	5.3	5.3	5.2
2010	7.8	4.6	5.4	4.5
2011	7.3	4.3	5.4	4.5
2012	7.2	3.9	5.4	4.4
2013	7.2	3.7	5.4	4.4
Disabled (excluding ESRD):				
1993	11.2	--	-2.1	19.0
1994	12.5	--	-0.3	4.5
1995	10.5	--	-6.6	-5.4
1996	4.8	--	-12.1	25.8
1997	6.1	--	5.4	18.1
1998	-3.9	-- <sup>2,3</sup>	0.3	-6.2
1999	8.0	-2.5 <sup>2,3</sup>	13.4	-12.2
2000	3.6	13.0 <sup>3</sup>	6.8	-11.1
2001	13.2	-44.1 <sup>3</sup>	7.1	-6.1
2002	5.6	10.6 <sup>3</sup>	15.7	28.4
2003	5.0	-2.8 <sup>3</sup>	6.8	4.3
2004	5.5	5.4	4.6	5.2
2005	6.8	5.6	7.1	6.0
2006	7.0	5.1	3.2	-1.4
2007	7.6	6.2	0.6	6.0
2008	7.7	6.4	3.2	6.0
2009	7.8	5.4	5.3	6.0
2010	7.8	5.4	5.4	6.0
2011	7.3	5.3	5.4	6.0
2012	7.2	5.2	5.4	6.0
2013	7.2	5.2	5.4	6.0

<sup>1</sup>From July 1, 1981 to Dec. 31, 1997, home health agency (HHA) services were almost exclusively provided by Part A. However, for those Part B enrollees not entitled to Part A, the coverage of these services was provided by Part B. During that time, since all Part B disabled enrollees were entitled to Part A, their coverage of these services was provided by Part A.

<sup>2</sup>Effective Jan. 1, 1998, the coverage of a majority of HHA services for those individuals entitled to Part A and enrolled in Part B was transferred from Part A to Part B. As a result, as of Jan. 1, 1998, there was a large increase in Part B expenditures for these services for the aged enrollees, and Part B coverage for these services resumed for disabled enrollees.

<sup>3</sup>Does not reflect the impact of adjustment for monies transferred from the Part A trust fund for HHA costs, as provided by the Balanced Budget Act of 1997.