

ACTUARIAL NOTE

NUMBER 44
JULY 1968

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Social Security Administration

COMPARISON OF ACTUAL EXPERIENCE UNDER MEDICARE WITH ORIGINAL ESTIMATES, 1966-67

by Robert J. Myers

It is always of interest and value to compare the actual experience under social insurance programs with the estimates prepared at the time that they were enacted or were modified by legislation. Such comparisons are frequently not possible over an extended period of time because of intervening legislative changes. At this time, it is possible, with certain minor difficulties, to make comparisons of the actual experience under the Medicare program for calendar years 1966 and 1967 with the cost estimates which were made when the program was enacted in 1965 (the source of these figures being the actuarial cost report on the 1965 Amendments, published by the House Committee on Ways and Means, dated July 30, 1965).

One significant difficulty in comparing actual experience under a new program with the cost estimates made in advance of its operation is the question of how much administrative lag will occur. This is, of course, pertinent only when the cost estimates are made to show the likely "cash" experience, rather than the experience on an accrual basis. On the other hand, if the estimates are prepared on an accrual basis, there is then the problem of converting the actual experience to this basis (which, for the Medicare program, is not yet possible for the early period of operations, even though adequate data on a cash basis are available). As it so happens, the initial cost estimates were prepared on a "cash" basis, so that comparison with the experience as recorded on this basis is possible, although the presence of the administrative-lag factor must still be given adequate consideration.

Table 1 presents the comparison of actual experience under the Hospital Insurance program with the original estimate. In both 1966 and 1967,

the actual contribution income was about 15% higher than the estimate; in part, this was due to earnings levels being higher than had been estimated, while, in part, it was due to changes made both by law and by regulation to speed up the collection of contributions. The actual benefit payments in 1966 (a half-year of experience) were 13% lower than the estimate, which was probably due to greater administrative lag than had been anticipated. On the other hand, for calendar year 1967, benefit payments were 35% larger than in the original estimate; this was due to a number of factors, including the catching-up of the administrative lag in 1966, the much higher increase in hospital costs than had been anticipated, the significantly larger costs with respect to extended care facility benefits than had been estimated (due to the much larger number of beds in such facilities that were initially available than had been estimated), and the somewhat higher hospital utilization than had been estimated. When the benefit experience is combined for 1966 and 1967--so as to minimize the effect of administrative lag--the actual benefit payments were 21% higher than had been estimated.

The actual HI administrative expenses in 1966 were almost double the estimate (because of the relatively high start-up expenses, particularly in connection with establishing entitlement to HI benefits by the noninsured eligibles, which had not been allowed for in the long-range cost estimates). On the other hand, the actual administrative expenses for 1967 were almost exactly the same as the original estimate.

The transfers from general revenues to the HI Trust Fund were significantly lower than the estimate for calendar year 1966 but somewhat

higher for 1967--this result being due to certain delays in the legislative and budgeting process (any differences between actual transfers and actual experience will be made up, with interest in the future). The actual interest income was approximately double what was estimated, because the balance that was accumulated in the early part of the period was significantly higher than estimated and because the actual interest rate on investments was above that used in the original estimate.

The balance in the HI Trust Fund at the end of 1966 was about 50% higher than the original estimate (by an amount of about \$325 million). However, by the end of 1967, the actual balance in the trust fund was about 4% (or \$50 million) lower than the original estimate. These results obtained primarily because the actual contribution income was higher than estimated in both years, while the benefit outgo was lower in 1966 but higher in 1967 than estimated (and this excess in 1967 more than offset the corresponding excess shown for contributions).

Table 2 presents corresponding data for the Supplementary Medical Insurance Trust Fund. The figures are based on a 92% participation rate by persons eligible to enroll. A range of cost estimates had been initially presented, with one variable being the participation rate, ranging from 80% to 95% (because no adequate data were available at that time for making a precise estimate of this rate). The actual experience in 1966-67 was a participation rate of about 92%, so that the estimates are shown on this basis.

It is of course, to be expected that the actual and estimated enrollee premiums would be in close correspondence. Because of appropriation and budgetary procedures, no matching government contributions were made during 1966, but rather in 1967 such contributions were made for both years; considering the two years combined, the ratio of the actual experience to the estimate was 97%. Looking at it another way, the actual government contributions for the 18 months of operation through calendar year 1967 amounted to \$933 million, as compared with enrollee premiums of \$962 million; the relatively small difference will be made up, along with interest, in 1968.

The actual SMI benefit payments in 1966 were only 40% of the original estimate; this difference was due primarily to the much larger lag in presenting claims and in adjudicating them than had been anticipated. In 1967, actual benefit payments were 6% higher than the original estimate. When the benefit experience is combined for 1966 and 1967, the actual benefit payments were 8% lower than had been estimated.

Actual administrative expenses in 1966 were 15% lower than originally estimated (in large part due to the aforementioned lag in filing and adjudicating claims). In 1967, the actual administrative expenses were 13% higher than estimated.

Interest receipts of the SMI Trust Fund in 1966 were lower than estimated because the trust fund did not then have available to it the government contributions that had been expected to be paid. However, in 1967, the reverse was the case, and actual interest receipts were more than twice as large as estimated (in part due to the fund being somewhat larger than estimated and in part due to the higher interest rate actually earned than had been estimated). The actual balance in the trust fund at the end of 1966 was only about half as large as estimated (because no government contributions were received during this period), but at the end of 1967, the actual balance was 37% higher than had been estimated (due to the fact that the cumulative benefit experience was somewhat lower than in the original estimate).

In considering the experience of the SMI Trust Fund, it should be kept in mind that during the first 18 months of operation (through the end of 1967), there continued to be more lag in the benefit payments than had been anticipated. The experience was analyzed on an accrual basis in order to determine the proper premium rate for the period April 1968 through June 1969. It was found that, despite the apparent favorable "cash" position of the program in the first 18 months of operation, the premium rate on an accrual basis was about 7% too low, and the law requires this to be taken into account in the promulgation of the new premium rate. More details on this matter are given in the 1968 SMI Trustees Report (House Document No. 291, 90th Congress).

Table 1
Comparison of Actual Experience Under HI Program With Original
Estimate, Calendar Years 1966-67
(dollar figures in millions)

| Item | 1966 | | | 1967 | | |
|---------------------------------|-----------|---------|-------|-----------|---------|-------|
| | Estimated | Actual | Ratio | Estimated | Actual | Ratio |
| Contributions ¹ | \$1,637 | \$1,885 | 115% | \$2,756 | \$3,207 | 116% |
| Transfers from General Revenues | 140 | 25 | 18 | 278 | 301 | 108 |
| Benefit Payments | 1,023 | 891 | 87 | 2,477 | 3,353 | 135 |
| Administrative Expenses | 54 | 107 | 198 | 77 | 77 | 100 |
| Interest on Fund | 18 | 31 | 172 | 25 | 51 | 204 |
| Fund at End of Year | 618 | 944 | 153 | 1,123 | 1,073 | 96 |

¹Includes payments from Railroad Retirement system representing net contributions from railroad workers.

NOTE: Data for benefit payments and administrative expenses include those with respect to uninsured persons; the original estimates for the uninsured combined the total for these two types of disbursements, which here are divided between benefit payments and administrative expenses in the ratio of 100 to 3.

Table 2
Comparison of Actual Experience Under SMI Program With Original
Estimate, Calendar Years 1966-67
(dollar figures in millions)

| Item | 1966 | | | 1967 | | |
|--------------------------|-----------|--------|-------|-----------|--------|-------|
| | Estimated | Actual | Ratio | Estimated | Actual | Ratio |
| Enrollee Premiums | \$315 | \$322 | 102% | \$644 | \$640 | 99% |
| Government Contributions | 315 | - | - | 644 | 933 | 145 |
| Benefit Payments | 324 | 128 | 40 | 1,124 | 1,197 | 106 |
| Administrative Expenses | 87 | 74 | 85 | 97 | 110 | 113 |
| Interest on Fund | 5 | 2 | 40 | 10 | 24 | 240 |
| Fund at End of Year | 224 | 122 | 54 | 300 | 412 | 137 |

NOTE: The above estimates are intermediate ones (i.e., the average of the low-cost and high-cost estimates).