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ACCRUED COST OF SMI PROGRAM FOR 1966 AND 1967

by
Robert J. Myers
Office of the Actuary

This Actuarial Note will analyze the experience of the Supplementary Medical Insurance program during 1966-67 with respect to the adequacy of the standard premium rate of \$3 per month that was applicable then according to the provisions of the 1965 Act. This rate was later extended (by legislation in late 1967) through March 1968, after which time it was increased to \$4.

The analysis is made on the basis of the 0.1% Actuarial Sample of payment records. Payment records are prepared for all benefit reimbursements except for those to institutional providers of service (namely, hospitals, extended care facilities, and home health agencies) and for those to direct-dealing group practice prepayment plans, which are reimbursed on a reasonable-cost basis. Such institutions are reimbursed only for their own costs, and not for any costs for institution-based physicians. A payment record relates to the services provided by only one physician (or other provider of services) and can be for one or more services, just so long as they were furnished in the same calendar year. The data, therefore, are significantly affected by whether the claimant (the provider in assignment cases and the enrollee in other cases) accumulates bills or whether he sends them in one at a time.

The available data indicate that in 1966, about 94.4% of the costs of the SMI program were paid on the basis of payment records, while for 1967, the proportion was 93.5%. However, this proportion is lower currently because of several changes made by the 1967

Amendments—namely (1) the transfer of the nonprofessional component of outpatient diagnostic services from HI to SMI, which is not reported on payment records; (2) the payment for the professional component of all outpatient services directly to the hospital for most hospitals, which is a shift from the former basis that required payment records in such cases; and (3) because of the payment for the professional component of inpatient pathology and radiology services through the HI program initially for the majority of hospitals (but eventually being paid by the SMI program), which, again, is a shift away from payment records.

In analyzing the cost of the SMI program to determine the adequacy of the premium rate, it is essential that this be done on an accrual basis. As of the moment, data for the first 6 months of operation (July through December 1966) are virtually complete; January-March 1969, the amounts on the new payment records for 1966 which were processed in January-March 1969 represented 0.33% of those received previously. Data for 1967 are, of course, not nearly as complete, although those for payment records when the last service occurred in the first 9 months are quite complete (the amounts on new payment records for this period which were processed in January-March 1969 being only 0.4% of those received previously). New payment records processed in January-March 1969 for which the last service occurred in October-December 1967 represented about 9% (by amount) of those received previously. Nonetheless, a

reasonably good estimate can be made for the eventual result for 1967 when all the payment records will be in.

The average per capita reimbursement of \$4.12 per month shown on payment records for July through December 1966 tabulated through March 1969 (see *Actuarial Note No. 55*) should be adjusted as follows:

- (1) When payment records covering all benefits for services rendered during 1966 have been tabulated (for some, the carriers have paid the claim but have not yet submitted the payment record; for others, the carriers have the claim but have not yet adjudicated it; and for still others, the claim has not yet been filed, but will be before the deadline in the law), there will be an estimated 0.5% more reimbursements than are included in the tabulation utilized in this Actuarial Note.
- (2) The Actuarial Sample is subject to statistical fluctuations. A comparison of the results from the 5% Statistical Sample of the Office of Research and Statistics with those of the Actuarial Sample shows that the latter was understated by approximately 4% in data tabulated through June 1968, of which about 1¼% is due to under-representation of persons in the Actuarial Sample, and the remainder is due to a lower average per capita claims cost in the Actuarial Sample than in the universe.
- (3) Benefit payments not included on payment records are 5.6% of total benefit payments (i.e., an increase of 5.9% over the payment-record data).
- (4) Benefits paid in 1967 because of deductible credits "carried over" from 1966 may be considered to be chargeable to 1966. It is estimated, from a fairly complete tabulation of this element, that this liability will add \$.45 per capita per month (for the applicable 6 months) to the 1966 average expenditure on an accrual basis.
- (5) Although administrative expenses in 1967 were about \$.60 per capita per month on a cash basis, inclusion of "start-up" expenses increases this amount to approximately \$1.06 as being applicable to the last 6 months of 1966 (on an accrual basis).

Based on these adjustments, the average per capita expenditure for July through December 1966 was \$6.05 per month. This figure may be compared with the corresponding one of \$6.11 (on a 6-month basis) from page 24 of the 1968 SMI Trustees Report and \$6.10 from page 23 of the 1969 SMI Trustees Report—and also with the \$6.00 income from the enrollee premium and the matching government contribution combined.

The average per capita reimbursement of \$5.56 per month shown on payment records for 1967 tabulated through March 1969 should be adjusted as follows:

- (1) For additional payment records to be included in later tabulations: +1%.
- (2) For understatement of Actuarial Sample: +4%.
- (3) For benefit payments not on payment records: +6.6%.
- (4) For the 1966 carryover deductible: —\$.23 (over a 12-month period).
- (5) For the 1967 carryover deductible: +\$.14.
- (6) For administrative expenses: +\$.61.

Based on these adjustments, the average per capita expenditure for 1967 is estimated at \$6.73 per month. This figure may be compared with the corresponding one of \$6.48 from the 1968 SMI Trustees Report and \$6.62 from the 1969 SMI Trustees Report—and also with the \$6.00 income from the enrollee premium and the matching government contribution combined.

The average per capita cost for the 18-month period, July 1966 through December 1967, is estimated from the foregoing figures at \$6.50 per month, or 8% in excess of the combined premium rate and matching government contribution. This is only slightly more than what was estimated in December 1967 (namely, a 7% differential), when the \$4.00 monthly standard premium rate was established for April 1968 through June 1969.

Another indication of the appropriateness of this procedure and of the adequacy of the \$4 standard premium rate for April 1968 through June 1969 is that, for this period, the total outgo for benefits and administrative expenses was \$2,257 million, while premium income was \$1,127 million. Thus,

outgo was 100.1% of total contribution income, assuming current equal matching from the General Fund of the Treasury. It should be noted that the outgo data does not include SMI benefits for inpatient pathology and radiology services that are billed through hospitals and initially paid by the HI Trust

Fund, but are eventually to be reimbursed to that trust fund by the SMI Trust Fund. This analysis on a "cash" basis is, of course, not precise. Proper analysis should be on an accrual basis, which is likely to show a somewhat higher ratio of outgo to total contribution income.