Shared Systems Policy Inadequately Planned and Implemented

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The Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

This report responds to your request that we provide the results of our review of a 1989 Health Care Financing Administration (HCFA) policy change that encourages HCFA's Medicare claims-processing contractors to share automated data processing (ADP) systems. In fiscal year 1991 HCFA paid 85 contractors $1.4 billion to process over half a billion Medicare claims. HCFA implemented the shared automation policy to save administrative costs and promote uniformity. This report presents our evaluation of (1) HCFA's implementation of this policy change and (2) the policy's impact on Medicare claims processing. Further details of our review objectives, including our scope and methodology, are provided in appendix I.

Results in Brief

While the shared automation initiative may save millions of dollars in administrative costs, these savings may be offset by millions of Medicare program dollars lost during conversion. Much of this loss results from problems in the way HCFA implemented its policy change. In particular, HCFA implemented this policy without adequate preparation and provided little or no oversight during its implementation. Further, HCFA did not establish minimum automation requirements to ensure that claims would be processed efficiently and accurately until 2 years after implementing the policy. Lacking these systems requirements, HCFA had no criteria with which to evaluate individual contractor systems. Such evaluation is needed to identify and select the best systems for sharing with other contractors. As a result, contractors stopped using their own systems and began using other systems that may have been less effective.

The cost-effectiveness of requiring all contractors to enter into shared ADP arrangements has not been demonstrated. In developing this initiative, HCFA focused primarily on administrative savings, ignoring the effect ADP systems have on processing effectiveness. Many contractors experienced claims-processing disruptions and reduced productivity during conversion to shared ADP systems. In addition, although HCFA has not adequately

defined a long-term strategy for contractor systems, it is considering requiring additional changes to its shared systems policy, without determining whether such changes would be cost-beneficial.

Background

Medicare is a federal health insurance program that covers over 30 million Americans 65 years of age or older, and others under age 65 with disabilities or chronic kidney disease. HCFA, an agency within the Department of Health and Human Services, pays contractors to process the payment of bills and claims and otherwise administer the program. Medicare part A (Hospital Insurance) covers services furnished by hospitals, home health agencies, hospices, and skilled nursing facilities. Medicare part B (Supplementary Medical Insurance) covers physicians' services and a range of other noninstitutional services, such as diagnostic laboratory tests and X rays.

HCFA employs contractors to process more than half a billion Medicare claims annually. These contractors, Blue Cross and Blue Shield plans or commercial insurance companies, rely extensively on ADP systems because of the complexity and magnitude of the program. These systems help contractors review medical services and determine if the claim payments are justified. Contractors use computer edits and screens to identify claims for services that are not covered under Medicare, claims that should be paid by primary insurers rather than the government or that otherwise appear questionable. For example, a screen could identify physician hospital visits that exceed guidelines for medical necessity and may not warrant payment.

Shared Systems Policy: Description and Status

In January 1989 HCFA had 87 contractors (50 part A and 37 part B) using 58 different ADP systems to administer the Medicare program.[1] In fiscal year 1989 HCFA paid these contractors about $1.2 billion in administrative costs, including almost $270 million to operate and maintain individual ADP systems. Medicare program changes often required making software modifications to all 58 ADP systems and HCFA incurred significant administrative expense paying for these modifications.

[1]Thirty-nine of the 87 contractors shared ADP systems, while the remaining 48 operated and maintained their own individual systems.

To reduce the administrative costs of maintaining multiple systems and to promote uniformity, [2] in January 1989 HCFA implemented a policy that encouraged more contractors to share Medicare ADP systems. It asked contractors to make plans to share ADP maintenance or processing with other contractors. This could be accomplished if two or more contractors agreed to (1) share ADP maintenance [3] by keeping separate computer operations but using the same software, or (2) share processing by consolidating computer operations—both hardware and software—into a single system. HCFA agreed to pay the contractors the costs of converting from their individual systems to shared maintenance or processing arrangements.

Compliance with HCFA's policy change was voluntary. However, to encourage participation HCFA informed contractors that it would no longer pay all costs to operate and maintain individual systems if contractors did not convert to a shared systems arrangement. HCFA held the contractors responsible for analyzing other contractor systems and selecting the best systems arrangement for the Medicare program. The agency did not provide specific guidance beyond a list of systems that were already operating in a shared systems arrangement.

As of January 1992, contractors had reduced the number of ADP systems processing Medicare claims from 58 to 22—14 shared systems, 6 for processing part A and 8 for processing part B, and 8 individual systems.[4] HCFA's estimated costs for converting contractor systems and the associated savings for fiscal years 1989-1992 are shown in table 1.

[2]By reducing the number of ADP systems and having multiple contractors share one system, HCFA believes processing operations will be easier to standardize and maintain.

[3]System maintenance refers to work performed by a contractor to change or update claims-processing software.

[4]Seventy-three contractors were using these shared systems, including 46 contractors in shared maintenance arrangements and 27 in shared processing. Shared systems processed 87 percent of the part A claims and 75 percent of the part B claims in fiscal year 1991.

Table 1: HCFA's Estimates for Costs and Savings for Shared Systems (dollars in millions)

	1989	1990	1991	1992[a]	Total
ADP Costs	269.0	299.0	323.0	337.0	1,228.0
Conversion Costs	2.0	13.0	13.6	11.0	39.6
Shared System Savings[b]	8.1	8.8	30.8	7.8	55.5
Net Savings or Loss[c]	6.1	[-4.2]	17.2	[-3.2]	15.9

[a]Fiscal year 1992 data are budget data because actual data are not available.

[b]HCFA determined these savings by comparing the actual shared systems maintenance costs with an estimate of what the maintenance costs would have been if the systems had not been consolidated. Additional savings in 1991 were achieved because HCFA reduced the ADP budgets of contractors using individual systems as an incentive to enter into shared arrangements. Despite savings, ADP costs continued to increase because of legislative changes requiring significant system enhancements.

[c]Shared systems savings minus conversion costs. Net savings do not reflect the cumulative impact of prior year savings.

Systems Requirements Not Defined and Evaluation of Contractor Systems Inadequate

HCFA implemented the shared systems policy without defining minimum automation requirements to ensure that claims would be processed efficiently and accurately. One of the first steps in initiating a system change should be to identify and document minimum automation or functional requirements to support mission needs.[5] In the case of HCFA, these systems requirements should consider how the Medicare program's information needs could best be supported by automation. The minimum system requirements would have provided contractors with specific claims functions and program controls that should be performed by the shared system. For example, the requirements would establish data standards to ensure claims-processing consistency and describe the minimum number and types of computer screens and edits needed to review Medicare claims.[6] It would also describe system reporting capabilities, including daily and weekly processing activities and monthly management reports.

HCFA did not evaluate individual contractor systems in order to identify the most appropriate systems for sharing with other contractors. Contractors were generally left on their own to decide which other contractors' systems to share. For example, Blue Cross of South Carolina identified its own set

[5]Information Technology: A Model To Help Managers Decrease Acquisition Risks (GAO/IMTEC-8.1.6, August 1990).

[6]Contractors use screens and edits to review claims for coverage, unnecessary procedures, and other factors that may make payment unwarranted.

of systems criteria to evaluate potential systems as candidates for a shared systems arrangement.[7] While Blue Cross of South Carolina had some conversion problems, the vice president of Medicare operations indicated that establishing systems evaluation criteria was beneficial in helping them select a shared systems arrangement that met their needs.

Failure to select the right system resulted in costly claims-processing problems for some contractors. For example, Blue Shield of California did not establish systems criteria or evaluate potential shared systems arrangements and, as a result, the shared systems arrangement selected did not have as many automated features as the system it replaced. In the 6 months following its conversion to a shared system in August 1990, we estimate that Blue Shield of California overpaid nearly $33 million under Medicare part B.[8] Specifically, before the contractor entered into a shared systems arrangement, its system had about 200 computer screens to review Medicare claims; after switching to another contractor's system, the company lost 75 of these computer screens. These screens review claims to detect unnecessary and uncovered procedures and erroneous and duplicate payments. The Blue Shield of California vice president for Medicare operations stated that his company had not done an analysis to estimate the amount of Medicare overpayments during the conversion period.

Similarly, the vice president of Medicare operations at Nationwide Mutual Insurance Company, another HCFA contractor, said it experienced similar problems after converting to the same shared system. We estimate that Nationwide made about $7.2 million in Medicare overpayments during the conversion period. The vice president said Nationwide has not analyzed overpayments for the conversion period. The vice president said the new system initially failed to identify all duplicate billings, and to avoid processing backlogs, certain edit screens were shut off, resulting in more overpayments.

[7]Blue Cross of South Carolina developed a 32-item list of criteria that they wanted in a shared system. Criteria included HCFA reporting requirements, maintenance arrangements, number of staff required, and home health claims processing since they are one of only nine regional home health contractors.

[8]We analyzed HCFA data for 34 contractors who converted from their own ADP systems to shared systems during fiscal years 1989 and 1990 to identify the impact of conversion on contractor performance. We compared Medicare payments denied per claim processed for seasonally comparable periods before and after conversion and projected the overpayments by multiplying the difference per claim by the number of claims processed in the post-conversion period. HCFA officials agreed that this methodology was reasonable for projecting overpayments.

Despite the critical need for early identification and evaluation of shared system requirements, HCFA did not develop a list of minimum automation requirements for part A until January 1991, almost 2 years after instituting the shared system policy.[9] By December 1990, just prior to HCFA's making part A requirements final, 41 part A contractors were operating in a shared arrangement. At that time only 8 part A contractors were still using individual systems. HCFA has only recently, in January 1992, developed minimum automation requirements for part B. By the time these requirements had been defined, the majority of contractors had already converted to shared maintenance or processing systems arrangements.

On the basis of the defined minimum automation requirements for part A, HCFA in 1991 performed an evaluation of the six systems being shared. We analyzed these evaluations and found that none of the shared systems fully met HCFA's minimum automation requirements. For example, five of the systems did not have adequate computer screens with which to review for duplicate claims and none of the six met all report requirements. On average these shared systems failed to adhere to about 20 percent of the minimum automation requirements, according to HCFA's project leader. HCFA plans to require part A contractors to correct any identified system deficiencies and may require them to pay for the corrections themselves.

In response to a questionnaire we sent in July 1991, only 20 of the 55 contractors in a shared maintenance or processing arrangement indicated they were very satisfied with their shared systems and that operational efficiency had improved.[10] Seventeen contractors indicated that they experienced processing problems during conversion, and the remaining 18 contractors indicated that either system upgrades were still needed to correct deficiencies or that they had seen no improvement in their operational efficiency and thought that conversion costs outweighed the benefits.

[9]HCFA issued requirements for ten major categories, including data collection and validation, reporting, file maintenance, correspondence, and claims adjudication.

[10]We sent questionnaires to 83 contractors and received 74 responses. Sixty-three contractors were in a shared maintenance or processing arrangement. Fifty-five of the 63 contractors responded to this particular question.

Cost/Benefit Analysis Inadequate

HCFA did not perform a comprehensive cost/benefit analysis on the impact of the shared systems policy. The agency performed a limited analysis, comparing the systems conversion costs with estimated administrative savings. HCFA believes that maintaining fewer systems and processing centers can reduce costs and promote uniformity. However, it did not consider the effect conversions may have on Medicare payments, including the differing systems' capabilities such as edits and screens, for ensuring Medicare payment accuracy.

Cost/Benefit Analysis Did Not Consider Management Data

In acquiring automated information systems, federal regulations and guidance require a complete and supportable cost/benefit analysis that provides adequate information with which to analyze and evaluate alternative approaches.[11] These analyses provide management with information on the quantifiable and nonquantifiable costs and benefits of alternative approaches to solving a given problem, which should then enable managers to determine the best alternative for achieving agency objectives.

HCFA maintains management data, submitted by the contractors, on claims-processing activities and performance measures. For example, contractors report the number and dollar amounts of claims denied due to other private insurers' being responsible for payment or the services not being covered under Medicare guidelines. HCFA also maintains data on claims-processing errors and interest paid to beneficiaries and providers for payments that were not made within established time frames. HCFA's program managers review these data to evaluate contractor performance and health care trends to identify needed changes in program policy and coverage.

HCFA systems analysts did not review these data to identify potential costs and benefits of the shared systems policy. The deputy director of HCFA's Program Operations Procedures Office agreed that HCFA should have used these data in its cost/benefit analysis. However, the director, Standard Systems Branch, said that many factors other than ADP systems influence program performance measures. We recognize that factors other than a contractor's ADP system can affect contractor performance. For example, the types of claims processed or the competence and dedication of contractor staff can affect the effectiveness of payment safeguards. We

[11]Federal Information Processing Standards Publication 64 and Federal Information Resources Management Regulation 201-20.

believe, however, that a contractor's ADP system is indispensable to safeguarding program funds during claims processing, and we analyzed these data to evaluate the effect of systems conversions on program costs.

Conversion Problems Have Been Costly

Conversions to shared systems have resulted in significant short-term claims-processing problems and errors. We reviewed HCFA's management performance data for the 6-month period following contractor system conversions. Of the 34 contractors who converted to shared ADP systems in fiscal years 1989 and 1990 (40 percent of all contractors), all had problems in at least one of the following three areas: decreased program safeguards, increased interest payments, and increased payment errors.

Twenty-one of the 34 contractors experienced a decrease in program safeguards that may have resulted in overpayments. As stated, some contractors lost system capabilities that may have resulted in Medicare overpayments. For example, Blue Cross of South Carolina and Blue Shield of Michigan both lost an automated feature that helped them identify when a Medicare patient had other insurance coverage. We estimate that the loss of this feature may have resulted in overpayments of $951,000 for Blue Cross of South Carolina and $1.1 million for Blue Shield of Michigan in the 6 months following conversion. Also, contractor staff had to manually identify primary insurers to avoid making overpayments.

Thirty-two of the 34 contractors who converted to shared systems had increased Medicare interest expenses totalling $2.2 million for the 6-month period following conversion. Contractors must pay interest to beneficiaries and providers when they fail to pay claims within established time frames. Blue Shield of Michigan's average monthly interest payments increased from $3,300 a month to $94,000 a month following conversion for a comparable 6-month period in the preceding year. Similarly, Blue Cross of California's increased from $6,700 a month before conversion to $56,000 a month after for similar periods. In responding to our questionnaire, contractors gave the following reasons for the increased interest payments: (1) staff being unfamiliar with the new ADP system (cited by 26 contractors), (2) improper system functioning (cited by 17), and (3) loss of automated capability (cited by 10).[12]

Errors in processing claims following conversion have also been costly. For seven of the nine contractors for whom conversion error rate data

[12]Some contractors cited more than one reason for the increased interest payments.

were available, the percentage of errors made during claims processing increased in the 6 months following conversion. For example, the Iowa contractor's payment/deductible error rate increased from .58 percent to 3.28 percent.[13] The quality review manager at Iowa/South Dakota Health Services Corporation said that the shared system used to process Iowa's claims had several deficiencies: (1) a computer software error caused many claims to be incorrectly and randomly denied, (2) a programming error caused payments to be issued to the wrong provider of services for a certain type of claim, and (3) the system denied certain types of claims because it was unable to recognize the codes of legitimate providers of services. According to this manager, system upgrades corrected these problems in July 1990, about 3 months after system conversion.

HCFA's Bureau of Program Operations' director believes that the relationship among the shared systems initiative, the increase in interest trends, and reductions in payment safeguards is not significant. The director believes that while any systems conversion will temporarily disrupt operations, a more important factor is adequate funding for improving ADP payment safeguard activities. While we have pointed out the importance of adequate safeguard funding many times, HCFA should still evaluate system performance data before implementing a nationwide systems policy, regardless of the funding level.

HCFA Has Not Documented or Communicated Its Long-Term System Plans

Although HCFA will have spent $39.6 million through fiscal year 1992 in implementing the shared system initiative, it has done so without a long-term systems plan or vision for the future. In effect, HCFA has not examined how best to process Medicare claims given current technology, but rather has merely decided to reduce the number of ADP systems used. A long-term plan would identify the types of systems HCFA eventually hopes to have in place to best process claims, given the state of ADP technology. This plan would also provide contractors with a better understanding of how HCFA envisions its future contractor ADP operations. The lack of such a plan has left contractors to speculate on what this system will eventually become.

While HCFA's Standard Systems Branch director said that HCFA is developing such a plan, the agency did not share the plan with us and he

[13]The payment/deductible error rate measures overpayments, underpayments, and deductible errors during claims processing.

did not know when they would be willing to share it. In lieu of a documented plan, HCFA generally provides contractors with information about near-term agency expectations, with little information on HCFA's long-term goals. Contractors indicated that they generally pieced together memoranda and information from HCFA briefings to get a sense of the agency's direction.

HCFA prepares a 5-year IRM plan that addresses its in-house ADP operations. While it updates this plan annually, it focuses on the IRM activities within HCFA headquarters and includes only a minimal discussion of contractor ADP. The most recent plan, prepared in April 1991, did not discuss contractor ADP. The 1990 plan only briefly mentioned its shared systems policy.

According to HCFA's IRM plan, HCFA considered Medicare contractors to be claims processors only. Although these contractors are the primary source of the program information HCFA uses, HCFA does not believe contractors' operations should be extensively addressed in the agency's IRM planning. Moreover, HCFA believes it has only limited control over contractors' ADP activities and that the agency must "persuade" contractors, through the budget process, to more efficiently and effectively use their ADP resources. We believe, however, that contractor IRM services are an integral component of HCFA's operations and therefore should be treated as an essential part of the agency's 5-year plan.

Shared Maintenance May Be an Expensive Interim Step

To save additional administrative costs, HCFA has been considering a plan to require further changes to its shared systems initiative. In a December 1991 memorandum to all contractors, HCFA made it clear that shared processing, rather than shared maintenance, is its preferred system arrangement. HCFA stated that it would provide additional funding for claims-processing improvements only to contractors in shared arrangements. HCFA specified that its goal is to determine the optimal number of shared systems arrangements that would provide the lowest possible administrative costs to maintain. HCFA has not yet determined, however, that this change from shared maintenance to shared processing would be cost-beneficial. If HCFA requires further change without evaluating related costs and benefits, it will be repeating the same mistakes it made when it initiated shared systems without detailed analyses.

Conclusions

HCFA's focus on administrative savings, while ignoring systems impact on the Medicare program, has wasted perhaps millions of dollars. Automated systems are an essential claims-processing tool, and proper management of these systems is essential in safeguarding the $108-billion Medicare program.

We support using current technology to make claims processing more efficient and effective. However, HCFA's approach to implementing its shared systems policy before defining basic systems requirements does not ensure that it will achieve these goals. We are concerned that if HCFA does not improve its implementation of this policy by better evaluating its needs, identifying options, and developing a strategy and plan to improve claims processing's efficiency and effectiveness, millions of additional Medicare dollars may be wasted.

Recommendation

We recommend that the Secretary of Health and Human Services direct the Administrator, Health Care Financing Administration, to suspend further implementation of its system sharing policy until HCFA

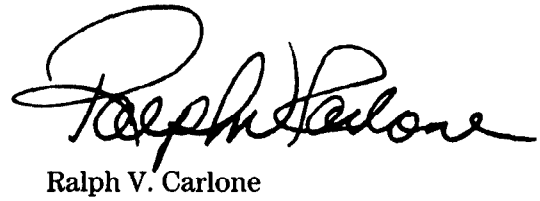
- completes its evaluation of existing contractor ADP systems to ensure that the systems are in compliance with HCFA's basic systems requirements,
- uses this evaluation along with contractor program performance data to determine which contractors would benefit from a conversion to shared processing and which systems would be the best candidates to convert to,
- provides continual oversight and direction of conversion activities to minimize disruption and ensure that Medicare processing goals are met, and
- develops a long-term strategic plan outlining HCFA's vision for Medicare claims processing and the interim steps needed to achieve this vision. Such a plan must address the use of technology in safeguarding Medicare funds and processing claims efficiently.

As requested, we did not obtain formal agency comments on a draft report. We did, however, discuss the facts with HCFA and contractor officials during the course of our work. They generally agreed with the facts and their views have been incorporated as appropriate. We conducted our review between December 1990 and March 1992, in accordance with general accepted government auditing standards.

We are sending copies of this report to the Secretary of Health and Human Services; the Chairmen, Senate Committees on Governmental Affairs and Appropriations; the Chairmen, House Committees on Government Operations and Appropriations; and the Director, Office of Management and Budget. Copies will also be made available to others upon request.

This report was prepared under the direction of Frank W. Reilly, Director, Human Resources Information Systems, who can be contacted at (202) 336-6252. Other major contributors are listed in appendix II.

Sincerely yours,



Ralph V. Carlone
Assistant Comptroller General

Objectives, Scope, and Methodology

Our objectives were to (1) evaluate HCFA's approach in initiating and developing its shared systems policy, including the agency's analysis of the automation requirements (system design criteria) and of the benefits, costs, and risks of revamping Medicare's ADP systems; and (2) determine the policy's success in terms of the systems' effectiveness in preventing and identifying overpayments and other processing inaccuracies. To accomplish these objectives we analyzed HCFA's Medicare program data, including data on processing errors and payment safeguard activities.

We interviewed HCFA officials at the agency's headquarters in Baltimore, Maryland, and at its regional office in San Francisco, California. We interviewed contractor officials about ADP system conversions at Blue Cross of California, Blue Shield of California, Nationwide Mutual Insurance Company in Ohio, Blue Cross and Blue Shield of South Carolina, and Transamerica Occidental Life Insurance Company in California. In addition, in July 1991 we sent a questionnaire to the 83 Medicare contractors concerning the shared systems initiative. We received 74 responses.[1] We asked them how they stood with respect to HCFA's shared systems policy, HCFA's assistance in selecting a system and converting to it, and, where applicable, their experience with the conversion to a different ADP system.

In addition, we obtained Medicare program payment data from HCFA's central office on all contractors. We analyzed program safeguard data for contractors who converted from one ADP system to another during fiscal years 1989 and 1990 to identify the impact of conversion on contractor performance.

[1] In July 1991 there were only 83 contractors because two contractors consolidated early in fiscal year 1991.

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