DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of Inspector General

Memorandum

Date AUG 27 1992

From Bryan B. Mitchell
Principal Deputy Inspector General

Subject Review of Medicare Bill and Claim Processing: Opportunities for Long Term Improvement (A-14-91-02532)

To William Toby, Jr.
Acting Administrator
Health Care Financing Administration

Attached is a copy of our final management advisory report on alternatives that the Health Care Financing Administration (HCFA) could pursue to improve Medicare bill and claim processing over the long term. With the assistance of a consultant, we identified and evaluated factors that should be considered in planning for the future of the Common Working File (CWF) and the shared Medicare Part A and Part B systems. The CWF is a system used to perform standardized edits and consistency checks on all bills and claims before payment by the Medicare contractors. The shared Medicare Part A and Part B systems are maintained and operated jointly by the Medicare contractors. The technical report prepared by our consultant covering these systems has already been provided to HCFA officials.

In the decade of the 1990's, Medicare will be faced with increased bill and claim processing work loads and increased total processing costs at a time when budgets may be austere. At the same time, HCFA must deal with a process for paying Medicare bills and claims that will increase significantly in total cost, with increased concerns for the sufficiency of internal controls, utility of financial management data, and compliance with Federal and Department of Health and Human Services (HHS) information resources management (IRM) mandates. In Fiscal Year (FY) 1993 alone, Medicare will pay a planned 107 million Part A bills and 630 million Part B claims, at a processing cost of over $896 million. The HCFA's task in dealing with these problems is made more complex because of the relatively large number of Medicare contractors (82) and systems (14) presently used to pay bills and claims.

In general, we found that there are significant opportunities to reduce processing costs, while at the same time improving the internal control environment, utility of data collected for Medicare financial management, and degree of compliance with

IRM requirements. Our review focused on two key areas: (1) opportunities for improvement which might be achieved by streamlining the Medicare process through further standardization, consolidation, and integration; and (2) ways by which the up-front cost of streamlining the process might be minimized by taking advantage of investments already made in existing systems at the Medicare contractors and at HCFA.

Of principal concern to HCFA in streamlining the process is the potential for significant savings in achieving paperless processing of bills and claims. We believe that achieving this goal could save up to about $111.5 million per year by FY 2000. Progress in reaching this goal could be made by further simplification and standardization of the electronic interfaces between provider-based billing systems and systems at the Medicare contractors.

Of principal concern to HCFA in minimizing up-front costs in streamlining the process is the potential use which could be made of the CWF system. Our analysis shows that the CWF system design could be integrated with the best elements of systems now used by Medicare contractors to a point where the ultimate streamlining of the process--adoption of a single, integrated system for processing Medicare bills and claims--is a technologically viable concept.

The alternatives identified in this report--promoting electronic billing, consolidating Medicare operations, and implementing an integrated bill and claim processing system--could enhance the economy, efficiency, effectiveness, and control over the processing of Medicare bills and claims.

To achieve these benefits, a strategic systems planning effort is needed to obtain an agency-wide consensus on systems needs, evaluate the feasibility of alternatives proposed, and develop the specific budget and action items required for streamlining of Medicare processing. Furthermore, to assure compliance with Federal IRM mandates, HCFA needs to place this streamlining effort squarely under the auspices of its own formal IRM program. And, to assure adequate IRM coverage from the start, HCFA needs to include the initiative to streamline Medicare processing as a new information systems item in the next IRM strategic plan submitted to HHS.

In response to our draft report, HCFA was largely in agreement with our recommendations and believes that in several instances it has already taken actions to answer the Office of Inspector General's concerns. The HCFA's specific comments are attached as an Appendix to this report.

Please advise us, within 60 days, on any additional actions taken or planned on our recommendations. If you have any questions, please call me or have your staff contact George M. Reeb, Assistant Inspector General for Health Care Financing Audits at (410) 966-7104. Copies of this report are being sent to other departmental officials.

Attachment

Department of Health and Human Services

OFFICE OF INSPECTOR GENERAL

REVIEW OF MEDICARE BILL AND CLAIM PROCESSING: OPPORTUNITIES FOR LONG TERM IMPROVEMENT

AUGUST 1992 A-14-91-02532

OFFICE OF INSPECTOR GENERAL

The mission of the Office of Inspector General (OIG), as mandated by Public Law 95-452, as amended, is to protect the integrity of the Department of Health and Human Services' (HHS) programs as well as the health and welfare of beneficiaries served by those programs. This statutory mission is carried out through a nationwide network of audits, investigations, and inspections conducted by three OIG operating components: the Office of Audit Services, the Office of Investigations, and the Office of Evaluation and Inspections. The OIG also informs the Secretary of HHS of program, and management problems, and recommends courses to correct them.

OFFICE OF AUDIT SERVICES

The OIG's Office of Audit Services (OAS) provides all auditing services for HHS, either by conducting audits with its own audit resources or by overseeing audit work done by others. Audits examine the performance of HHS programs and/or its grantees and contractors in carrying out their respective responsibilities and are intended to provide independent assessments of HHS programs and operations in order to reduce waste, abuse, and mismanagement and to promote economy and efficiency throughout the Department.

OFFICE OF INVESTIGATIONS

The OIG's Office of Investigations (OI) conducts criminal, civil, and administrative investigations of allegations of wrongdoing in HHS programs or to HHS beneficiaries and of unjust enrichment by providers. The investigative efforts of OI lead to criminal convictions, administrative sanctions, or civil money penalties. The OI also oversees State Medicaid fraud control units which investigate and prosecute fraud and patient abuse in the Medicaid program.

OFFICE OF EVALUATION AND INSPECTIONS

The OIG's Office of Evaluation and Inspections (OEI) conducts short-term management and program evaluations (called inspections) that focus on issues of concern to the Department, the Congress, and the public. The findings and recommendations contained in these inspection reports generate rapid, accurate, and up-to-date information on the efficiency, vulnerability, and effectiveness of departmental programs.

SUMMARY

In the 1990's, Medicare will be experiencing increases in bill and claim processing work loads and total processing costs. The Health Care Financing Administration (HCFA) must deal with a process for paying Medicare bills and claims that will increase in total cost, with increased concerns for the sufficiency of internal controls, utility of financial management data, and compliance with Federal and Department of Health and Human Services (HHS) information resources management (IRM) mandates. In Fiscal Year (FY) 1993 alone, Medicare will pay a planned 107 million Part A bills and 630 million Part B claims, at a processing cost of over $896 million. The HCFA's task in dealing with these problems is made more complex because of the relatively large number of Medicare contractors (82) and systems (14) presently used to pay bills and claims.

With the assistance of a consultant, we identified and analyzed alternatives that the HCFA could pursue to improve Medicare processing over the long term. We also found that there are significant opportunities to reduce processing costs, while at the same time improving the internal control environment, utility of data collected for Medicare financial management, and the degree of compliance with Federal and departmental IRM requirements. We believe that these opportunities could be achieved by streamlining the Medicare process through further standardization of electronic billing and data communications (DC) procedures, consolidation of processing operations, and integration of automated data processing (ADP) application systems.

MEDICARE PROCESSING COULD BE STREAMLINED THROUGH FURTHER STANDARDIZATION, CONSOLIDATION, AND INTEGRATION.

Further **standardization** could promote paperless processing of Medicare bills and claims, with potential savings of up to about $111.5 million by FY 2000 and could lead to improved consistency of program payments, as well. **Consolidation** of processing could provide opportunities for achieving economies of scale and reduce HCFA's effort needed to oversee Medicare contractor operations. Systems **integration** could enable HCFA to collect, cost-effectively, the data needed to track program outlays

against budget forecasts. Likewise, systems integration could simplify the task of bringing Medicare processing into compliance with Federal and HHS IRM requirements.

We believe, however, that additional investment would be needed up-front to achieve the desired level of standardization, consolidation, and integration. To minimize the investment required, HCFA should take advantage of investments already made in existing Medicare systems: ADP application systems for processing bills and claims that are shared among the Medicare contractors; the Common Working File (CWF) system for standardized prepayment authorization of all Medicare bills and claims; and the Project to Redesign Information Systems Management (PRISM) for collecting, storing, and using Medicare data for program and financial management.

To reduce risks in effecting necessary changes in Medicare processing, HCFA needs to adhere to the Federal systems development life cycle (SDLC). The SDLC is a term used to refer to the phases of a system's evolution from beginning to end and incorporates all the evaluative steps necessary to ensure that mission needs are met economically, efficiently, and in conformance with all applicable IRM requirements. And, to help ensure adherence to these requirements, the standardization, integration, and consolidation of Medicare bill and claim processing has to be placed under the auspices of HCFA's IRM program.

We recommend, therefore, that HCFA: (1) initiate, as soon as possible, a strategic planning effort to determine the feasibility of further streamlining Medicare operations through standardization, consolidation, and systems integration; (2) follow the SDLC in the planning effort and any subsequent implementation steps; (3) develop specific plans and budget estimates for making necessary improvements, based on the outcome of the feasibility study; and (4) include the initiative to streamline Medicare processing as a new information systems item in the next HCFA IRM strategic plan submitted to the Assistant Secretary for Management and Budget.

In response to our draft report, HCFA was largely in agreement with our recommendations and believes that in several instances it has already taken actions to answer the Office of Inspector General's (OIG) concerns. The HCFA's specific comments are attached as an Appendix to this report.

TABLE OF CONTENTS

INTRODUCTION

BACKGROUND

The Medicare program is the largest federally funded health care program in the United States and is one of the fastest growing parts of the Federal budget. In FY 1993, it is estimated this program will provide over $141 billion in benefits to over 35 million aged and disabled Medicare beneficiaries.

Medicare is comprised of two complementary, yet separate parts: Hospital Insurance (also called Part A) and Supplementary Medical Insurance (also called Part B). Part A covers inpatient hospital, skilled nursing facility, and home agency care. Part B covers physician, outpatient, and medical services.

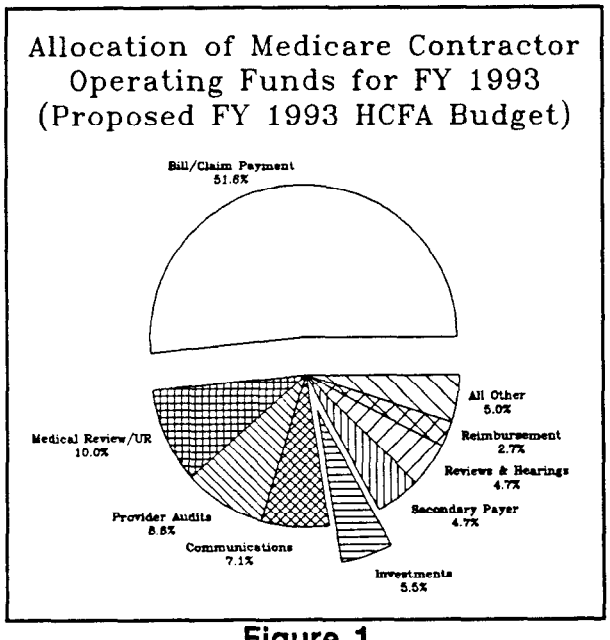

Figure 1

The Medicare program (Title XVIII of the Social Security Act, as amended) is administered by the HCFA. Title XVIII provides that public or private organizations (known as intermediaries for Part A and carriers for Part B) may assist in the administration of the Medicare program.

Collectively, the intermediaries and carriers are commonly referred to as Medicare contractors. The Medicare contractors are primarily either plans associated with the Blue Cross Blue Shield Association (BCBSA) or commercial insurance companies. In January 1991, HCFA reported that 67 BCBSA affiliates (41 Blue Cross Plans for Part A and 26 Blue Shield Plans for Part B) and 12 commercial and independent organizations were serving as Medicare contractors. The HCFA projects that, in FY 1993, there will be 46 intermediaries and 36 carriers, for a total of 82 Medicare contractors, with operating costs of nearly $1.74 billion.

Some of the items for which HCFA has budgeted Medicare contractor operating funds in FY 1993 are: (1) medical/utilization review; (2) provider audits; (3) beneficiary/provider communications; (4) Medicare secondary payer; (5) reconsiderations, formal reviews and hearings; and (6) reimbursement. By far, however, the largest single allocation of the Medicare operating budget is for *bill and claim payments*. For FY 1993, HCFA has budgeted $896.3 million, more than half the Medicare contractor operating budget, for processing that covers the receipt, editing, authorization, adjudication, and payment of an estimated 107 million Part A bills and 630 million Part B claims. And, HCFA has budgeted $95.2 million in *productivity investments* which will cover, primarily, improvements in bill and claim processing systems and operations.

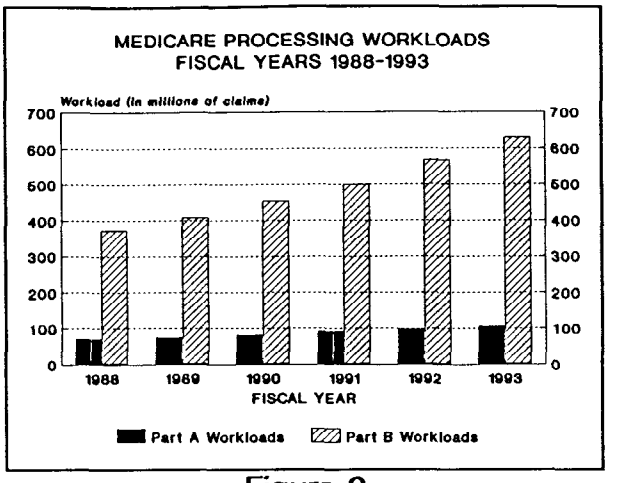

Figure 2

Over the years, there has been a significant increase in bill and claim processing work loads and total processing costs. If current trends in processing work loads and costs continue, by FY 2000, Medicare contractors will be processing about 187 million Part A bills and about 1.3 billion Part B claims at a cost of about $2.1 billion annually.

Currently, most intermediaries use one of six systems shared among them[1] to receive, edit, and pay Part A bills. Five of these shared Part A systems are in the

[1]In the shared systems environment, several Medicare contractors may use the same computer software to process bills or claims. In addition, smaller contractors may not only use software supported by larger contractors, but may also use the larger contractors' data processing facilities, as well.

public domain[2] and one is proprietary.[3] Likewise, most carriers use one of eight systems shared among them to process Part B claims. Two of the shared Part B systems are in the public domain, while six of these Part B systems are proprietary. At the end of FY 1991, shared Part A systems were being run at 34 different computer centers nationwide, while shared Part B systems were being run at 28 different computer centers nationwide. The HCFA encourages users of each of these systems to participate in user groups where problems in the operation of these systems can be identified and corrected.

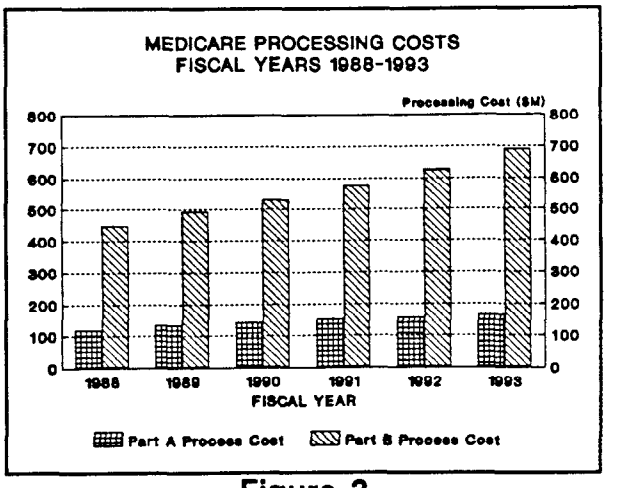

Figure 3

To reduce payment errors, the HCFA implemented the CWF system over the period 1987 to 1990. The CWF system will cost HCFA about $35 million in FY 1993 over and above the cost of bill and claim payment processing at the intermediaries and carriers.

The HCFA designed the CWF system to perform standardized edits and consistency checks on all bills and claims before payment by the Medicare contractors. It also allows Medicare providers and contractors to make limited computerized queries, via telephone lines, into up-to-date beneficiary files on eligibility, deductible status, and Part A and Part B utilization of benefits.

---

[2]Systems in the public domain do not require a user to pay a license fee or lease.

[3]Proprietary system, in this context, means that the supplier has proprietary rights of ownership and that a lease or license fee must be paid to the supplier for use of the system.

The CWF system, run at nine Medicare contractor-operated mainframe computer host processing centers,[4] thus interfaces with all the shared Part A and Part B systems. Each CWF host has a primary geographical service area (or sector) which determines the specific Medicare contractors that it supports.

The CWF system also provides HCFA with electronic copies of all bills and claims that it has validated for payment. The data received from CWF are now being used by HCFA to correct the high-risk area reported under the Federal Managers' Financial Integrity Act. But, because of the substantial cost involved, the CWF system, and the shared Part A and Part B systems which exchange data with it, have not been modified to collect all the data needed for tracking program outlays against budget forecasts on a timely basis.

METHODOLOGY

The objectives of this review were to (1) identify and evaluate factors that should be considered in planning for the future of CWF and the shared Medicare Part A and Part B systems and (2) recommend approaches based on an evaluation of these factors that could be used to improve the processing of Medicare bills and claims over the long term. The factors included in our scope were (1) economies, efficiencies, improved internal controls, and other benefits that might be achieved through paperless provider billing; (2) systems standardization; (3) consolidation of processing operations; and (4) integration of Medicare contractor and HCFA's internal systems.

To meet the objectives, we reviewed the history of the Medicare program to obtain an understanding of the evolving roles of intermediaries and carriers. We reviewed reports previously issued by the OIG and the General Accounting Office addressing the issues of economy, efficiency, and internal controls at the

[4]CWF host sites are Medicare contractor-operated processing centers with which HCFA has established agreements as riders to the basic Medicare contracts. The host receives bills and claims from intermediaries and carriers, determines beneficiary eligibility and deductible status, checks the bills and claims for duplicates, performs consistency tests to Part A and Part B beneficiary histories, and performs other payment safeguard tests. The host either accepts or denies the bills and claims, and transmits them to the intermediaries and carriers for payment or corrective action.

Medicare contractors. And, we reviewed HCFA's Justification of Budget and Legislative Program for Office of Management and Budget for Fiscal Year 1993 to obtain an understanding of current work loads, costs, and initiatives in Medicare operations.

With the assistance of a consultant, we: (1) analyzed the current design and implementation status of the CWF; (2) reviewed the status of HCFA's efforts to promote resource sharing among the Medicare contractors for bill and claim payment; (3) identified functions which an integrated bill and claim payment system of the future would have to perform; (4) evaluated the effects which evolving technologies, Governmentwide systems standards, and departmental IRM requirements would have on the design of such a system; (5) evaluated how the capabilities of CWF and the program management data bases and information systems at HCFA, being implemented under PRISM, might best be incorporated into an integrated claims processing system; (6) formulated and evaluated various alternative future systems design concepts; and (7) selected a model design concept and implementation timetable suitable for recommendation to HCFA.

To complete the analysis, we first obtained detailed data from HCFA on the anticipated bill and claim processing environment at the Medicare contractors with respect to costs, systems resources, internal controls, and financial data requirements. Then, we used these data, in conjunction with data from HCFA's proposed FY 1993 Medicare contractor operating budget, to (1) project anticipated bill and claim processing volumes and costs and (2) model the possible effects on processing costs of increased electronic billing by Medicare providers. (See EXHIBIT--Methodology for Estimating Potential Savings from Increased Electronic Media Claim (EMC) Submission of Medicare Claims)

The field work was conducted during the period January 1991 through January 1992 at HCFA's central office in Baltimore, Maryland.

We have already provided our consultant's technical report to HCFA officials and we are continually working with HCFA staff on technical issues. This report serves as a summary presentation on not only the portion of our review supported by the consultant, but also our additional findings and recommendations.

RESULTS OF REVIEW

We found that there are significant opportunities to reduce future Medicare bill and claim processing costs, while at the same time: improving the Medicare internal control environment; enhancing the utility of data available to monitor

program outlays; and ensuring compliance of Medicare systems with Federal and HHS IRM requirements. These opportunities can be achieved through the streamlining of Medicare processing by further promotion of electronic billing and data communication procedures; consolidation of Medicare contractor bill and claim processing operations; and, eventually, through integration of Medicare contractor-run systems with HCFA's own financial management and other management information systems.

We believe, however, that additional investments in information processing resources (hardware, software, and data communications) would be needed up-front to achieve the optimum level of electronic billing, consolidation of operations, and standardization and integration of bill and claim processing systems. To minimize the additional investments required, HCFA needs to take advantage of improvements already made to Medicare processing in: shared Medicare contractor bill and claim processing systems; the CWF nationwide system of standardized prepayment authorization of all Medicare bills and claims; and HCFA's program to modernize its own Medicare information systems known as PRISM.

Furthermore, to deal effectively with the risks inherent in a complex effort such as streamlining Medicare operations nationwide, HCFA needs to follow the SDLC. The SDLC is a set of standard methods and procedures which has been promulgated through Federal and HHS IRM policy to assist agencies in reducing risks during their systems development projects. And, to assure adherence to all applicable IRM requirements from the start, HCFA needs to include the standardization, integration, and consolidation of Medicare bill and claim processing under the auspices of its formal IRM program.

OPPORTUNITIES TO ACHIEVE EFFICIENCIES AND ECONOMIES IN BILL AND CLAIMS PROCESSING IN THE FUTURE

Industry experience suggests that moving from a decentralized to consolidated system for transaction processing can result in significant opportunities for cost savings. We found that this experience might be applied to Medicare bill and claim processing. Promotion of increased electronic billing by providers could offer HCFA opportunities to significantly reduce Medicare bill and claim processing unit costs. Consolidation of Medicare contractor data processing and

data communications operations would help to promote increased electronic billing and make available to HCFA the advantages of economies of scale.

Reduced Unit Costs Possible Through Promotion of Increased Electronic Billing by Medicare Providers

The primary means for effecting economy in Medicare processing is to promote increased electronic submission of bills and claims by Medicare providers of health services. The reason is that HCFA has determined it is $0.50 cheaper to process an electronically submitted bill or claim than one submitted in hard copy.

Increased electronic billing can be promoted through incentives to providers. The HCFA has already recognized this and has submitted regulations and legislative proposals to increase rates of electronic billing and to accelerate payment via the Department of the Treasury's electronic funds transfer (EFT) system for providers who bill electronically.

Based on current law and regulation, HCFA expects that, by the end of FY 1994, up to 97 percent of Part A bills and 75 percent of Part B claims will be submitted electronically. The HCFA also expects that additional incentives proposed for FY 1993 will increase electronic billing somewhat beyond the projected FY 1994 levels in future years. Based on discussions with HCFA staff, we estimate that, by FY 1997, 98 percent of Part A bills and 83.33 percent of Part B claims will be submitted electronically.[5] New measures, however, would be needed to move even closer to paperless submission of bills and claims.

Our analysis shows that potential savings of up to about $1.9 million per year could be obtained by reaching the point of paperless processing for Part A bills. The greatest area of savings potential through increased electronic billing, however, is in Part B. Our analysis shows that, by FY 2000, increasing the Part B EMC percentage from 83.33 percent to 90 percent could save as much as $43.7 million annually and moving from an EMC percentage of 83.33 to paperless submission of Part B claims could save as much as $109.6 million annually.

But, to increase EMC rates beyond the levels it expects to achieve through its latest proposals, HCFA will need to make electronic billing easier for existing manually-reporting providers and new providers coming into the Medicare

[5]The 98 and 83.33 percentages represent the effect of having one-third of the anticipated hard copy bills and claims submitted electronically.

program. The HCFA will also need to provide wider opportunities for EMC-reporting providers to be paid electronically.

Today, each of the shared Part A and Part B systems uses standardized formats promulgated by HCFA for submitting bill and claim data on magnetic tape or floppy disk. Most other types of provider electronic bill or claim processes are specific to each computer system used.

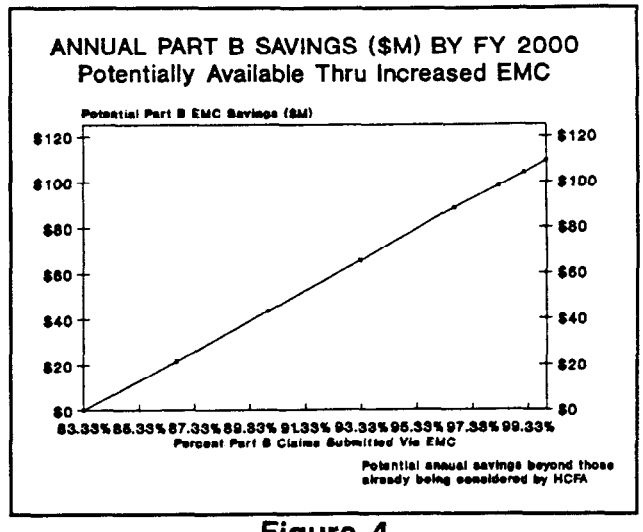

Figure 4

One way to promote further electronic billing would be to standardize the provider reporting process and data communications interface nationwide. This would permit vendors of provider-based systems to more cost-effectively incorporate this process and EFT interface with the Department of the Treasury. These vendors, in turn, could offer product upgrades to providers at more reasonable cost, thereby increasing the number of providers capable of billing Medicare electronically.

In conjunction with this standardization, HCFA could make it even easier for vendors of provider-based systems to interface these systems with Medicare. This could be accomplished by (1) using standard industry processes for transferring electronic business documents and data communications adopted as "open" systems mandates by the Federal Government, and (2) consolidating Medicare data communications into a single network, compliant with these mandates.

Today, however, virtually all the processing of data in the nationwide Medicare network is built around proprietary technology either supplied by the International Business Machines (IBM) Corporation or from companies with systems which are compatible with IBM technology. As we noted in a prior report,[6] there are significant technical problems involved in interfacing IBM-oriented technology with a more "open" communication environment such as the Government's

[6] "Review of Short Term Improvements to the Common Working File System," CIN: A-14-91-02531, dated April 10, 1992.

telecommunications network under development--the Federal Telecommunications System 2000 (FTS2000).

Moving from an IBM-oriented environment to open systems would make it easier for providers to obtain systems that would allow for additional electronic billing. An open system environment would also permit HCFA to use the FTS2000 network effectively for Medicare data communications nationwide, while enabling HCFA to benefit from emerging advances in technology based on open systems. Thus, opening of Medicare systems would enable HCFA not only to improve the economy and efficiency of Medicare processing, but also to make significant strides in meeting two critical departmental IRM goals--paperless processing and improved service to beneficiaries and the public.

Lower Unit Costs through Reduction of Number of Contractors

The advantages of economies of scale are available through consolidation of Medicare contractor data processing and data communications operations. This consolidation of operations would permit HCFA to better match operation capacities to actual Medicare work load requirements. Computer and data communications resources specifically tailored to meet these requirements could be acquired more efficiently and cost-effectively. And, since technical support costs are largely by their nature installation-based fixed costs, consolidating operations would tend to reduce these costs, as well.[7] Thus, instead of being performed in a shared environment at over 60 computer centers and using multiple sets of dedicated telephone data communications lines, processing could be concentrated at as few as 2 (and no more than 9 or 10) dedicated, geographically distributed facilities using a single network (e.g., FTS2000).

Consolidation of contractor operations would also save systems modification and testing costs through reduction of the number of shared systems. Presently, each of these systems has to be modified and tested individually (first, by the vendor, then by the Medicare contractor members of its user group) when Medicare law, regulations, or operational policy changes occur. The HCFA pays the Medicare contractors for these changes through allowable administrative costs, either as direct operating expenses or licensing fees. Since the cost for

[7]Technical support includes computer operating and DC systems software maintenance and trouble-shooting; ADP application system software maintenance; day-to-day management of ADP and DC operations; and technical policy, planning, and resources management.

systems modification and testing is dependent on the number of changes to be made and systems to be tested, we believe that reducing the number of shared systems and consolidating the number of processing sites would also reduce systems modification and testing costs.

We believe that the cost of implementing new technology could be reduced by consolidating the number of systems. Appropriate application of new technologies for bill and claim processing could be researched and implemented with less effort and at less cost for a reduced number of systems, rather than for each of the 14 currently shared systems used to pay bills and claims.

OPPORTUNITIES TO IMPROVE INTERNAL CONTROL ENVIRONMENT AND QUALITY OF PROGRAM DATA

Further standardization and consolidation of Medicare processing could also provide opportunities to improve both the Medicare internal control environment and the quality of data available for monitoring Medicare program outlays.

Improving the Internal Control Environment

Further standardization and consolidation of operations would provide HCFA with the opportunity to improve the internal control environment in which bills and claims are paid. This could be achieved through increased monitoring of contractor operations and redesign of control processes.

At present, HCFA does not perform detailed internal control reviews of bill and claim payment operations at each site due to the prohibitive cost. Rather, HCFA is planning to have Medicare contractors perform self-assessments. Significantly reducing the number of systems from 14 and the number of major processing sites from over 60 would (1) reduce the level of effort required for internal control reviews and (2) permit HCFA to more closely monitor ongoing payment operations by conducting on-site reviews.

Consolidation of contractor operations would also reduce the effort and cost required to design, develop, and implement improvements to general and application controls. Effective application controls and general controls over

software development and maintenance would need to be established for fewer systems. And general controls over ADP and DC operations would need to be established at no more than 10 sites, rather than at the present 60 or more major processing locations.

Improving the Quality of Data for Medicare Program Management

Currently, HCFA cannot accurately track actual program outlays by service provided and date of payment back to budget estimates. This inability is a concern in that it hampers the timely explanation of differences between forecasted and actual expenditures, and it results from two separate but related problems.

First, HCFA uses CWF as the primary source of data for tracking Medicare outlays tied to utilization of benefits. But, CWF does not capture actual payment amounts, only amounts authorized for payment. These amounts may be subsequently adjusted (before or after payment) by the Medicare contractors. Also, CWF carries an estimated payment date which, in a number of cases, differs from the actual payment date (e.g., due to processing backlogs and delays at the Medicare contractors). The HCFA estimated that to include the actual dates of payment and the actual dates that payments were effected through the Treasury or Federal Reserve system in CWF would require $9 million in one-time computer software development, as well as $65 million additional annual operating costs at CWF hosts and Part A and Part B processing sites.

Second, HCFA relies on decentralized financial management systems at the Medicare contractors. Each Medicare contractor uses its own letter-of-credit bank account to pay bills or claims and its own financial management system to track expenditures. Historically, the Medicare contractors have had difficulty in reconciling their financial records to Treasury/Federal Reserve system disbursements. Only recently, has HCFA required intermediaries to reconcile their bank accounts with disbursements and report, in aggregate, reconciled data by month and type of service. The HCFA, however, does not require the carriers to report reconciled payments in a similar fashion. Thus, even if CWF were modified to carry actual payment amounts and dates obtained from intermediaries and carriers, such data could not be relied upon as being totally accurate because of its sources.

We believe that the current decentralized mode of operations and financial management, with multiple systems and numerous operating sites, makes it very costly to implement improvements which might otherwise enable HCFA to better

and more timely explain differences between forecasted and actual expenditures. We also believe that further standardization of financial management procedures at the Medicare contractors, with requirements for providing accurate and detailed data on outlays, is possible. And, we believe that this standardization, in conjunction with a reduction in the number of contractor locations, could enable HCFA to make needed improvements in Medicare program data at an acceptable level of cost.

SUGGESTED APPROACHES FOR MAKING NEEDED IMPROVEMENTS

While the further streamlining and integration of Medicare processing would provide HCFA with opportunities for improved economy and increased efficiency, such an effort, itself, could require investment in new technologies and systems development. We believe that HCFA could minimize the amount of new funding needed to effect needed changes in Medicare processing by capitalizing on investments already made--in shared Part A and Part B processing systems, CWF, and PRISM.

The HCFA is likely to face significant restraints in the time, cost, and budget required to complete the streamlining efforts. And, HCFA is likely to face significant, additional Federal and HHS IRM regulatory constraints in acquiring the ADP and DC resources needed to modernize Medicare systems.

To minimize risks in effecting the necessary systems changes, HCFA needs to structure its streamlining efforts around the Federal SDLC. The SDLC refers to the phases of a system's evolution from beginning to end and includes provisions for considering how best to modernize systems efficiently and economically while, at the same time, complying with all applicable IRM requirements.

Opportunities for Using Shared Part A and Part B Systems to Further Standardize Medicare Processing

Since the early 1980s, HCFA has gained considerable experience with the operation of the shared Part A and Part B systems. This experience was gained through the process of reviewing and certifying these systems for shared use in the Medicare contractor community; evaluating the performance, work loads, and costs of individual contractors using these systems; and interfacing these systems with the CWF system. Thus, HCFA should be in a good position to know what

are the "best practices" of these systems with respect to mechanisms for facilitating direct electronic submission of bills and claims from providers; electronically screening, editing, and checking bills and claims for possible errors and potential abuses; and effecting payment through electronic funds transfer. Furthermore, several of the shared systems are in the public domain; thus, HCFA has the opportunity to make increased use of them without payment of substantial licensing fees.

The HCFA could take advantage of both the operating experience and computer software developed for the shared systems to further standardize Medicare bill and claim processing. Using "best practices" of systems in the public domain, HCFA could make the software available for use by Medicare contractors not already using these systems. The HCFA could also encourage vendors of proprietary shared systems to incorporate the "best practices" in future versions of their Medicare products. The HCFA could negotiate with the vendors to obtain multiple copies of licenses for Medicare processing at lower cost than if the Medicare contractors were to acquire such licenses individually. And, HCFA could select from among the shared systems a single set of software interfaces to promote increased electronic submission of bills and claims by providers. We believe that these steps could provide the benefits of increased standardization with only moderate increases in cost.

Using CWF as the Cornerstone for Further Consolidation of Medicare Bill and Claim Processing

We also believe that CWF is a solid cornerstone upon which to further consolidate Medicare claims processing. The system is the heart of the Medicare bill and claim payment process and already has many of the essential parts needed for further consolidation, including comprehensive beneficiary histories of Part A and Part B utilization; standard edits and consistency checks; and network linkages to facilitate data communications with HCFA, providers, and the Medicare contractors. Furthermore, our analysis shows that the CWF system design could be integrated with the best elements of the shared Part A and Part B systems to a point where the ultimate in standardization--adoption of a single, integrated, nationwide system for processing Medicare bills and claims--is a technologically viable concept.

Under such a system, providers could submit their bills or claims, for the most part electronically, to a limited number of processing sites (from as few as two to nine, the current number of CWF host sites). At these processing sites, editing, authorization, and adjudication could be performed and payment could be effected through EFT. As with the current CWF system, beneficiary utilization

history data already at the CWF hosts could be used for editing and consistency checking. And, data processed for payment could be forwarded to HCFA's central office for use in Medicare financial management and management information systems.

Our analysis showed that such a system could be implemented over a 5 to 9-year period. Implementation could be accomplished in stages, with each providing important interim benefits in economy and efficiency.

Using PRISM to Facilitate Consolidation of Medicare Processing Through Systems Integration

While CWF could be the cornerstone for standardizing and consolidating Medicare processing, PRISM, HCFA's systems modernization program, could facilitate this standardization and consolidation through integration of Medicare systems. The PRISM is a comprehensive effort to implement an up-to-date management information systems environment for HCFA's central and regional offices.

Under PRISM, HCFA has gained considerable experience in designing and developing data base-oriented systems using up-to-date tools and techniques such as data dictionaries, structured systems and data base design, computer-aided systems engineering, and off-the-shelf database management systems. Effective use of these tools and techniques is essential to the successful implementation of an integrated Medicare bill and claim processing system by reducing the time, effort, and cost needed to effect the needed integration.

Furthermore, the Medicare-oriented data bases already developed and implemented under PRISM could be incorporated into an integrated, nationwide, Medicare bill and claim processing system design. Such a design could effectively tie together the systems run by the Medicare contractors with HCFA's own financial management and other management information systems, thereby facilitating the accumulation of data needed for improved monitoring of program outlays.

Reducing Risks and Effecting Federal IRM Compliance Through Use of the SDLC

It can be anticipated that any initiative to streamline Medicare processing will have to be carried out within significant time, cost, and budget constraints. Also, HCFA probably will have to deal with significant ADP and DC resource acquisition

constraints based on recent changes in Federal and HHS IRM policy which extend the scope of that policy to entities such as the Medicare contractors.

Use of the SDLC would provide HCFA with an effective framework for obtaining agencywide consensus on Medicare data needs; formulating, evaluating, and selecting alternatives for future implementation; and establishing strategic and tactical systems plans needed to carry out systems design, software development, resource acquisition, and systems implementation.

Use of the SDLC would, thus, help to reduce risks and ensure consistency of changes made nationwide; limit the additional software development required to implement these changes; and minimize conversion costs. Also, the opportunity to explore new approaches based on open-systems technology in a coordinated way at shared processing locations, CWF hosts, and the HCFA Data Center would result.

The SDLC process would also provide HCFA with the opportunity to acquire cost-effectively the additional ADP and DC resources needed for streamlined Medicare processing in accordance with Federal and HHS IRM requirements (e.g., open competition, use of FTS2000, and compliance with Federal open systems mandates) while at the same time meeting the HHS IRM goals of paperless processing and improved service to beneficiaries and the public.

CONCLUSIONS AND RECOMMENDATIONS

As HCFA moves towards the 21st century, it will be faced with increased Medicare bill and claim processing work loads and increased total processing costs in a budget environment which may be austere. At the same time, HCFA must deal with increased concerns for the sufficiency of internal controls, utility of financial management data, and compliance with Federal IRM mandates. The HCFA's task in dealing with these problems is made more complex because of the relatively large number of contractors and systems presently used to pay bills and claims.

We believe that the current method of using 82 contractors, 14 different Part A and Part B systems, and the CWF to pay Medicare bills and claims can be improved with respect to economy, efficiency, sufficiency of internal controls, and utility of data collected for financial management. These improvements can be made by the streamlining of Medicare processing through standardization, consolidation, and integration.

A streamlined, integrated system, running at fewer contractors, could promote electronic billing of Medicare by providers; provide the full benefits of recent advances in computer-related technology; help ensure consistency of payment and enable implementation of effective internal controls; permit cost-effective collection of detailed payment data to improve Medicare financial management; and foster effective compliance with Federal and HHS IRM mandates. And, such an integrated system may be needed to ensure effective and cost-efficient Medicare processing over the next 10 years and beyond.

We believe that a strategic planning effort is needed to achieve the appropriate degree of standardization, consolidation, and integration of Medicare bill and claim processing. The objectives of this effort should be to determine how best to foster electronic billing by providers, achieve economies of scale in Medicare operations, apply new technology to Medicare processing, establish enhanced internal controls to help reduce overpayments, and establish a system to accurately track program outlays against budget estimates. As part of the study, HCFA should explore how best to capitalize on investments already made in shared Part A and Part B systems, CWF, and PRISM.

To help manage risks associated with a major systems effort, we believe that the SDLC called for by Federal and HHS IRM policy should be followed. And, to ensure adherence to the IRM requirements, the standardization, integration, and consolidation of Medicare bill and claim processing has to be placed under the auspices of HCFA's formal IRM program.

We recommend, therefore, that HCFA:

1. Initiate, as soon as possible, a strategic planning effort to determine the feasibility of further streamlining Medicare operations through standardization, consolidation, and system integration.

   HCFA's Comments

   The HCFA concurred with this recommendation and indicated that efforts to streamline bill and claim processing are ongoing. The HCFA indicated further that it recently formed a task force to review Medicare's bill and claim processes and to assess the feasibility of further streamlining Medicare operations.

2. Follow the Federal SDLC in the planning effort and any subsequent implementation steps.

HCFA's Comments

The HCFA also concurred with this recommendation and indicated that it will follow the SDLC in the planning and implementation of future systems-related efforts.

3. Develop specific plans and budget estimates for making necessary improvements based on the outcome of the feasibility study.

HCFA's Comments

The HCFA concurred with this recommendation and indicated that specific plans and budget estimates will be part of future systems-related efforts.

4. Include the initiative to streamline Medicare processing as a new information systems item in the next HCFA IRM strategic plan submitted to HHS.

HCFA's Comments

The HCFA indicated that it has already submitted, and the Department has accepted, an amendment to HCFA's 1992 IRM strategic plan detailing how Medicare contracts will be incorporated into HCFA's IRM planning process. The HCFA also indicated that the 1993 IRM strategic plan will include a full treatment of HCFA's IRM requirements for the contractors and that any additional IRM requirements will be highlighted in the strategic plan.

EXHIBIT

METHODOLOGY FOR ESTIMATING POTENTIAL SAVINGS FROM INCREASED EMC SUBMISSION OF MEDICARE CLAIMS

1. Obtain base data on claims processing unit costs and volumes from HCFA's FY 1992 legislative budget justification (for FY 1988 data) and FY 1993 budget justification to the Office of Management and Budget (for FY 1989-1993 data).

2. Based on discussion with HCFA staff in the areas of anticipated increase in claims volume, trends in EMC submission, and standard adjustments for inflation, project future work loads and costs through FY 2000.

   a. Use a constant annual rate of inflation of 3.8 percent, comparable to the rate used by HCFA over the last 2 years.

   b. Use an average annual rate of increase over the period FY 1994 through FY 2000 based on estimated annual increases over the period FY 1988 through FY 1993. For Part A, the average annual rate of increase in work loads over this period was 8.32 percent; for Part B work loads, the average annual rate of increase was 11.05 percent.

   c. Use percentages for electronic billing and claims submission based on HCFA's estimates of actual percentages in FY 1994.[1] Assume that, based on HCFA's FY 1993 proposals, an additional one-third of bills and claims that would have been submitted in hard copy form would, by FY 1997, be submitted electronically. Thus, the EMC percentages for Part A and Part B in FY 1997 would be 98 percent and 83.33 percent, respectively.

3. Using base data developed in Step 2, model the effects on unit costs of increasing EMC percentages from anticipated levels through incremental increases in percentages all the way to total electronic reporting.

---

[1]The HCFA estimates that the percentage of Part A electronic billing in FY 1994 will be 97 percent; the EMC percentage for Part B, 75 percent. The actual percentages for FY 1991 for Part A and Part B were 81 percent and 48.3 percent, respectively.

Memorandum

Date JUN 29 1992

From William Toby, Jr.
Acting Administrator

Subject OIG Draft Report - "Review of Medicare Bill and Claims Processing: Opportunities for Long-Term Improvement," A-14-91-02532

To Inspector General
Office of the Secretary

We have reviewed the subject draft report in which the Office of Inspector General (OIG) examines alternatives that the Health Care Financing Administration (HCFA) can pursue to improve Medicare bill and claims processing in the long term.

OIG recommends that HCFA: (1) initiate, as soon as possible, a strategic planning effort to determine the feasibility of further streamlining Medicare operations through standardization, consolidation, and integration of existing systems; (2) follow the Federal Systems Development Life Cycle in the planning effort and any subsequent implementation steps; (3) develop specific plans and budget estimates for making necessary improvements based on the outcome of the feasibility study; and (4) include the initiative to streamline Medicare processing as a new information systems item in the next HCFA Information Resources Management strategic plan submitted to the Department.

HCFA is largely in agreement with the recommendations contained in this report. In several instances, we believe we have already taken actions which will help us to answer the concerns voiced by OIG. Our specific comments on the report's recommendations are attached for your consideration.

Thank you for the opportunity to review and to comment on this draft report. Please advise us whether you agree with our position on the report's recommendations at your earliest convenience.

Attachment

Recommendation 1

OIG recommends that HCFA initiate, as soon as possible, a strategic planning effort to determine the feasibility of further streamlining Medicare operations through standardization, consolidation, and integration of existing systems.

HCFA Response

We agree. For many years, HCFA has actively promoted initiatives to streamline bill and claims processing. These initiatives have included: the introduction of standard modules of software developed according to HCFA specifications for incorporation into existing Medicare contractor systems, the Common Working File, the shared systems initiative, electronic media claims/bills, and the Project to Redesign Information Systems Management (PRISM). Our efforts in this regard are ongoing, and we recently formed a task force to review Medicare's bill and claims processes and to assess the feasibility of further streamlining Medicare operations.

Recommendation 2

OIG recommends that HCFA follow the Federal Systems Development Life Cycle (SDLC) in the planning effort and any subsequent implementation steps.

HCFA Response

We agree. We will follow the SDLC in the planning and implementation of future systems-related efforts.

Recommendation 3

OIG recommends that HCFA develop specific plans and budget estimates for making necessary improvements based on the outcome of the feasibility study.

HCFA Response

We agree. Specific plans and budget estimates will certainly be part of our future systems-related efforts. However, we have assumed that "the feasibility study" mentioned in this recommendation refers to the analysis called for in OIG's first recommendation, rather than another independent study.

Recommendation 4

OIG recommends that HCFA include the initiative to streamline Medicare processing as a new information systems item in the next HCFA Information Resources Management (IRM) strategic plan submitted to the Department.

HCFA Response

HCFA has already submitted an amendment to its 1992 IRM strategic plan, which details how Medicare contracts will be incorporated into the Agency's IRM planning process. The Department has accepted HCFA's plans in this regard.

The 1993 IRM strategic plan will include a full treatment of HCFA's IRM requirements for the contractors. In the future, as HCFA initiates new IRM activities, these activities will be highlighted in the IRM strategic plan.