Medicare Transaction System: Platform for Change

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This article provides an overview of the Medicare Transaction System (MTS), a Health Care Financing Administration (HCFA)-wide initiative to be implemented starting in 1997 which will develop a national, standard, integrated, government-owned, contractor-operated Medicare claims processing system that will meet the challenges confronting Medicare over the next 2 decades. The authors discuss MTS goals and objectives, major features, how it will work, standardization efforts being undertaken in support of the initiative, contracting efforts involved, and project status.

INTRODUCTION

HCFA is in the midst of a bold initiative to meet the claims processing challenges confronting Medicare over the next 2 decades. On January 19, 1994, HCFA awarded a 6-year, $19-million contract to GTE Government Systems Corporation (GTE) to create a Medicare claims processing system—the MTS—that will use state-of-the-art computer technology to process more than a billion claims a year by the turn of the century at a savings of $200 million per year in administrative costs. The MTS will be a national, standard, integrated, government-owned, contractor-operated Medicare claims processing system which will consolidate in one system the automated claims processing functions currently performed by 79 contractors (i.e., carriers and intermediaries) using 10 independent systems to process Medicare claims at 62 sites around the country. HCFA will begin live processing of Medicare claims through the MTS in September 1997, with full implementation expected by 1999.

The MTS will provide data for internal and external analysis of benefit utilization, allowing HCFA and the health service delivery community to ensure that Medicare beneficiaries are receiving appropriate care and that program dollars are being used efficiently. The expertise of all components of the agency is being called on to ensure that the MTS meets this goal.

In announcing the award of the MTS design contract, Secretary of Health and Human Services Donna E. Shalala stated, "The new system will constitute a total overhaul of Medicare's means for paying health care providers. The new system will provide for more consistent payment decisions across the Medicare program and help identify problems, including fraudulent billing, more easily. It will improve and simplify services for beneficiaries. It will dramatically reduce the complexity of the Medicare program." (U.S. Department of Health and Human Services, 1994) The MTS will allow HCFA to:

- Improve the level of service it provides to its customers—the beneficiaries and providers.
- Achieve greater efficiency in administration.
- Achieve greater uniformity in operations.
- Improve its control of program expenditures.

The MTS will be supported by other changes to the Medicare environment. HCFA has an ambitious agenda for standardization of several key elements of Medicare claims processing, with piloting

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or implementation of the various initiatives expected to take place prior to or coincident with MTS implementation.

EVOLUTION OF THE MEDICARE TRANSACTION SYSTEM

Part of HCFA's basic mission is to ensure that Medicare claims are processed in a timely, accurate, and cost-efficient manner by the carriers and intermediaries under contract with HCFA to make payments to providers of services and beneficiaries. In the 1980s, HCFA launched the shared system and Common Working File (CWF) initiatives—the precursors to MTS—to deal with the lack of uniformity in carrier and intermediary operations and the high cost of implementing changes to numerous processing systems.

The shared system initiative reduced the number of claims processing systems used by requiring contractors to create, participate in, and/or share common arrangements for claims processing. There are two shared system models—shared maintenance and shared processing. Shared maintenance is an arrangement whereby two or more contractors utilize the same claims processing software operated at their own individual computer facilities. However many processing sites are involved, all software maintenance and enhancement activity is performed by a single maintenance contractor. Shared processing is an arrangement whereby several contractors use a single data processing center to process Medicare claims, with one contractor maintaining the claims processing software. These different shared arrangements all led to reduced costs and shortened the lead time needed to make system changes.

In 1990, HCFA proceeded with the national implementation of the CWF, the first use of a single, national, standard software system. The CWF is a national prepayment benefit authorization and eligibility verification system. Under the CWF, Medicare claims are still processed by carriers and intermediaries, but then data are transmitted to one of nine CWF sites to ensure that Medicare's basic eligibility requirements are met along with other program requirements. Appropriate responses are returned to the carriers and intermediaries, and the data are then integrated into a National Claims History File maintained by HCFA's Bureau of Data Management and Strategy.

Despite the successful implementation of the shared system and CWF initiatives, the opportunity still existed to reduce the fragmentation caused by the still-numerous claims processing systems. This fragmentation led to inconsistencies in processing, variations in methods and approach, duplication and redundancy in operations, and high costs for maintenance and for conversion to utilize new technologies (Walton, 1993).

In October 1991, HCFA began to plan for the development of the MTS so as to move toward central control of data administration in accordance with good enterprise standards. Through MTS, HCFA will achieve many of its strategic goals for taking the Medicare program into the Twenty-first Century. For example, HCFA expects that the MTS will create an environment to improve services to beneficiaries and providers, increase administrative efficiency, and facilitate the management of program expenditures (Health Care Financing Administration, 1992a).

The MTS will improve services to beneficiaries and providers by supporting a single point of contact for information on entitlement, eligibility, benefits, payment decisions, and claims status. A beneficiary or provider

will be able to call any Medicare customer service organization (intermediary, carrier) and receive answers to basic questions about any claim. The MTS will also greatly enhance the coordination of supplemental insurance benefits by automatically sending claims data to other insurers for their share of payment without additional beneficiary and/or provider involvement.

Administrative efficiency will be achieved by having only one system. A single system will allow changes to be made faster, more easily, and with greater accuracy and uniformity, and will eliminate redundancies in data needs, files, and processing.

The MTS will provide an improved ability to detect fraud and abuse; to detect suspicious billing patterns and aberrancies; and to bring about early trend detection, facilitating HCFA's management of program expenditures. MTS will simplify information and data flow and will increase standardization and uniformity of operations.

FEATURES

HCFA looks forward to achieving several goals and objectives by incorporating key features within the system, such as its integrated claims processing capability. MTS will facilitate the administration of and technological upgrades to the system. Changes resulting from new legislation will all be controlled by HCFA and implemented through the MTS while data and system integrity are ensured. In the current claims processing environment, any global modifications must be implemented individually by the various systems and can result in inconsistent changes and thus inconsistent Medicare benefit determinations. Such problems will be avoided upon completion of the MTS.

Another key feature is that MTS represents a significant step toward greater automation in the Medicare claims process. Upon implementation, most Medicare beneficiary billing history, eligibility, and provider data will be available to Medicare providers and suppliers electronically with access determined and controlled in accordance with Federal privacy and confidentiality requirements. Electronic access to this data will also enable the speedy and accurate handling of beneficiary problems, provider questions, and claims status determinations by carriers and intermediaries.

Yet another key feature is that the MTS will employ open systems architecture. This will allow for hardware independence, meaning the MTS will not be dependent upon any one computer manufacturer's hardware. Since the MTS will be Government-controlled and contractor-operated, no changes can be made to the system unless approved by HCFA, thus ensuring standardization. Although there will be only one version of the system, it will still accommodate local variation in medical review policies (Health Care Financing Administration, 1992b).

HOW WILL IT WORK?

The MTS will consolidate Medicare claims processing by replacing the standard systems and the CWF and integrating Part A and Part B claims processing. The structure envisioned for an MTS environment requires local contractors (carriers and intermediaries) to continue to provide customer service functions to Medicare beneficiaries and providers. The MTS operating sites (the number of which will be determined at a later date) will carry out the automated claims processing functions.

Under MTS, providers or billing agents who have the capability to communicate directly will be able to send their claims electronically to an MTS operating site instead of an intermediary or carrier. Paper

claims will be keyed by local intermediaries and carriers and sent electronically to MTS. The MTS operating site will then process the claims and ensure appropriate payments to the providers.

The MTS will be fully automated, and operating site staff will consist principally of computer operators and telecommunications specialists. Operating site staff will not handle inquiries or exceptions, nor will they have access to the files or software. They will, however, be expected to ensure proper functioning of the software and telecommunications interfaces.

When the MTS assumes responsibility for automated claims processing, the existing local contractors (carriers and intermediaries) will focus their efforts on beneficiary and provider service and payment safeguard functions. The contractors will:

- Serve as the focal point for the beneficiary and provider.
- Provide information and support services to beneficiaries and providers.
- Handle claims functions and transactions that are not automated in the MTS system (e.g., appeals).
- Provide service and safeguard functions (e.g., management of exceptions, overpayments, provider enrollment, medical policy, fraud and abuse, hearings and appeals, etc.).

STANDARDIZATION EFFORTS

HCFA intends to standardize certain elements of the Medicare program prior to or coincident with the first stage of MTS implementation in September 1997. As a result of the standardization initiatives prompted by Medicare's movement to a single system for processing claims, Medicare providers can expect a more uniform application of payment rules and an increase in the consistency and accuracy of claims determinations. The health care policy and research community can expect greater consistency and higher quality in the data available from the Medicare program for research and evaluation purposes.

HCFA's primary initiatives for standardization focus on the uses of American National Standards Institute (ANSI)-approved standard transaction sets (e.g., claims, remittance, etc.) and unique provider and payer identifiers. In addition to these efforts, HCFA has planned to move toward acceptance of only 3 standard formats for submission of electronic claims by Medicare billers, a dramatic reduction from the more than 400 formats that are currently accepted by Medicare carriers and intermediaries. Finally, a significant portion of the needs and requirements analysis currently under way at HCFA focuses on identifying areas of local variation in the claims process which might be standardized prior to MTS implementation.

National Provider Identification Initiative

The National Provider Identification initiative is an intergovernmental effort to establish and maintain a comprehensive and unique number for health provider identification. In the current claims processing environment, Medicare contractors use several methodologies for assigning local practitioner identification numbers and linking them to their respective medical groups. These different numbering schemes are unwieldy in the context of a consolidated claims processing environment. In early 1993, HCFA began planning for the implementation of a national provider data base. While HCFA is leading the initiative, other government health insurance programs are full partners in this enumeration effort. In addition to the Medicare and Medicaid programs, the Department of Veterans Affairs,

the Department of Labor, and the Department of Defense—through the Office of the Civilian Health and Medical Program of the Uniformed Services (OCHAMPUS)—have been involved in planning for movement to a national provider identifier (Health Care Financing Administration, 1993).

This initiative supports overall administrative simplification efforts. The national provider identifier offers an opportunity to identify the same provider in multiple health programs. A provider will submit information on credentials and certification to a single entity which will forward it to a centralized information repository. This centralized information repository will then serve Medicare and other health programs by providing a single authoritative source of key information necessary to enroll a provider into a specific health care program. National provider identifiers will be assigned to hospitals, nursing homes, home health agencies, and individual providers such as physicians and non-physician practitioners. Medicare will then use this information to populate its own Medicare Provider Database, which will only contain information on Medicare participating providers. Medicare payment policies will then be applied uniformly by provider type.

National Payer Identification Initiative

The National Payer Identification initiative is a project in which a unique identifier will be assigned to every payer of health care claims, eliminating the occurrence of redundant payer numbers, and facilitating the coordination of medical insurance benefits. This is a joint venture among Federal and State government agencies and the private sector, with participation by the Health Insurance Association of America, the National Association of Insurance Commissioners, State Medicaid agencies, and other Federal agencies (Internal Revenue Service, Social Security Administration [SSA], Department of Labor). The payer identifier will function as a pointer in a national payer data base which contains payer addresses and other relevant business information. In addition to access to the data base by payer number, the data base will also allow access by common payer names to provide ease of use.

The national payer identifier is expected to be in use prior to implementation of the MTS. HCFA views the national payer identifier as a first step toward one-stop billing, which would simplify billing by routing Medicare payment information to other relevant payers automatically. Using a one-stop billing approach, a Medicare provider will submit to Medicare one bill which will then be routed directly to other payers and supplemental insurers. A Medicare provider will not have the expense or hassle of submitting bills to multiple payers for a single claim. One-stop billing also eliminates the need for Medicare beneficiaries to file supplemental claims with other insurers. A national payer identifier will facilitate editing of Medicare claims to determine if Medicare is the secondary payer and provide a mechanism for reducing or eliminating errors in the transfer of claims to supplemental payers.

The national payer identifier is expected to achieve overall savings for the Medicare Trust Funds through better tracking of third party liability situations and improved coordination of benefits. A single data base of payer characterizations also offers new opportunities for research and tracking of health service utilization among the working aged.

Reducing the Number of Electronic Claims Formats

In order for the MTS to maximize its operating efficiency, HCFA has undertaken

a standardization initiative in the area of electronic claims submission formats. Current Medicare claims processing systems accept multiple formats for electronic submission of Medicare claims, resulting in variability in electronic format acceptance among Medicare contractors. Medicare providers and suppliers often submit claims to more than one contractor, depending on the type of service, and must use multiple submission formats, depending on the claims processor. There are currently at least 450 different electronic claims submission protocols and edit packages in use by Medicare providers and suppliers. The claims processing costs associated with the variations in electronic formats can be minimized by reducing the number of formats accepted by Medicare contractors, thereby reducing the overall cost of administering the Medicare program.

Beginning in July 1996, HCFA will require that Medicare contractors only accept three standard electronic formats. HCFA identified the three standard formats (ANSI-837, UB-92, and the National Standard Format) in cooperation with ANSI and the health care industry. Movement to three standard formats will lessen the current burden on providers who submit claims to multiple Medicare contractors using a variety of electronic formats.

Internal Agency Workgroup Efforts

In addition to the broad-based efforts relating to provider and payer identification and electronic claims formats, HCFA is also working to identify sources of local variations in claims processing and benefit coverage through a needs and requirements analysis. The Medicare program was designed to meet beneficiary medical needs with accommodations for geographical variations in medical practice. At the direction of Congress, HCFA has moved toward standardization of reimbursement to providers, with the introduction of the prospective payment system for hospital services and Medicare fee schedules for physicians and other services. As there are variations in reimbursement to providers based on geographic and other factors, so there are variations in local contractor claims processing policies to accommodate local practice needs and characteristics. An integral portion of the needs and requirements analysis currently under way at HCFA in preparation for the MTS is the identification of local variations that exist in the current systems. Local variations can exist in claims editing and processing, medical review and coverage, and a number of other program areas. HCFA is currently surveying its claims processing contractors to determine the need for standardization of many other parts of the Medicare claims process with the implementation of MTS.

CONTRACTING EFFORTS IN SUPPORT OF MTS

HCFA is currently working with GTE on the design, development, and maintenance of the MTS. A contract for an independent verification and validation of the MTS design and development effort was awarded to Intermetrics, Inc. HCFA anticipates that other procurements will be necessary throughout the MTS development cycle to support full implementation of the MTS.

The MTS Design Contractor

The 6-year, $19-million MTS design contract was awarded to GTE on January 19, 1994, to develop the MTS software. GTE specializes in telecommunications products and services, systems integration, and

software development. GTE will be assisted in its efforts by its subcontractors, GTE Data Services; Empire Blue Cross/Blue Shield of New York; Veritus, Inc., formerly Blue Cross of Western Pennsylvania; IBM Health Services; and Andersen Consulting. Each brings a particular expertise to the MTS team. GTE is following a standard industry systems development life-cycle methodology in its design and development of the MTS. GTE's MTS responsibilities during the various life-cycle phases include:

- Analysis: Analyzing the current Medicare claims process (e.g., what is done and how).
- Design: Designing a replacement system for the future—the MTS.
- Development: Building the MTS (writing the software).
- Validation: Testing and validating the software.
- Implementation: Assisting HCFA and the operating sites with transition to the MTS.
- Technical Support/Maintenance: Maintaining the system (modifying the software) for the life of the contract (*MTS Bulletin*, 1994a).

Independent Verification and Validation Effort

HCFA has obtained an independent verification and validation (IV & V) contractor to assist in evaluating and validating the processes, procedures, methods, and tools used by GTE in the design, development, and implementation of the MTS. The IV & V contract was awarded on March 31, 1994, to Intermetrics, Inc., a nationally recognized resource in the fields of IV & V and software and systems engineering. Intermetrics' $4 million contract will run concurrently with the contract awarded to GTE.

The goal of the IV & V contractor is to identify and eliminate risk and thus ensure the success of the project. Intermetrics' MTS responsibilities include:

- Reviewing all GTE work products.
- Participating in structured presentations, formal reviews, and HCFA project meetings.
- Maintaining a presence at GTE's local office to monitor quality.
- Recommending solutions to issues regarding design, development, and testing throughout the MTS systems-design life-cycle process (*MTS Bulletin*, 1994b).

CURRENT PROJECT STATUS

HCFA is currently in the analysis phase of the project. During the analysis phase, GTE and HCFA are identifying and validating MTS requirements. HCFA's approach to requirements gathering includes:

- Identifying Medicare program policy from the Medicare manuals, program memoranda, etc.
- Reviewing existing Part A, Part B, and CWF systems and identifying "best practices."
- Interviewing HCFA central and regional office components, Medicare contractors, beneficiary and provider groups, and other outside organizations such as the General Accounting Office and the Office of Inspector General.
- Obtaining information from internal workgroups that are defining new and evolving requirements.

GTE has successfully completed work on several management-related deliverables (e.g., project management plan, quality assurance plan) and has begun work on the technical deliverables: system requirements definitions (SRDs) for the current and future systems and the system design alternative (SDA). The SRD for the current

system will identify existing requirements and will provide traceability to the new system. The SRD for the future system will identify the requirements for the MTS. The SDA will contain various design approaches to the claims processing system environment including hardware, optimum number of operating sites, and operating system. GTE will also recommend the optimum approach to be used in the implementation of MTS (*MTS Bulletin*, 1994c).

HCFA has created several workgroups, consisting of staff from across the agency who are responsible for identifying HCFA's future needs and requirements for the MTS with input from representatives from the contractor community, State Medicaid agencies, providers, and beneficiary groups. The workgroups are responsible for:

- Defining claims processing activities to be performed by the MTS operating sites, local contractors, and HCFA.
- Identifying the data and information required by each of these entities to perform the activities.
- Integrating the needs and concerns of internal HCFA components and external entities (e.g., intermediaries, carriers, providers and beneficiary groups, OCHAMPUS, and SSA).

The workgroup outputs will be consolidated into a comprehensive inventory of HCFA's future claims processing requirements, which will be forwarded to GTE early in 1995. HCFA also has created 12 project teams which are responsible for several long-term activities related to the development, communication, and implementation of the MTS.

SUMMARY

The MTS initiative is the single most visible and aggressive step towards program modernization HCFA will take in the remainder of this century. The MTS will position HCFA to meet its strategic goals to improve service to beneficiaries and providers, reduce costs, manage change, streamline operations, and keep pace with innovative and state-of-the-art technologies. These improvements, on which the MTS will be developed, will allow for easier integration of alternative payment methods, such as those being implemented in managed care. In addition, the MTS will give HCFA the ability to implement legislative and policy changes more accurately and reliably through central programming and testing, with minimum disruption to ongoing claims processing activities.

For Medicare, the MTS represents a shift in philosophy. In the past, many decisions were left to the carriers and intermediaries (e.g., how to number providers). With MTS, HCFA has embarked on the road to standardization, consolidation, and increased national administration of the program; but also a road that will lead to improved service to beneficiaries and providers, increased administrative efficiency, and better management of program expenditures.

ACKNOWLEDGMENTS

The authors are grateful for the advice and comments given by their colleagues on the MTS Initiative Project Management Taskforce—Charles H. Slike, Robert A. Silva, and Arnold Rottman.

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Reprint Requests: Wendy Kerr, Bureau of Program Operations, 362 Meadows East Building, 6325 Security Boulevard, Baltimore, Maryland 21207.