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The Honorable Stephen Horn
Chairman, Subcommittee on Government Management,
Information and Technology
Committee on Government Reform
House of Representatives

Subject: Medicare: Post-Hearing Questions Related to Financial and Information Technology Management

Dear Mr. Chairman:

On July 11, 2000, we testified before your Subcommittee on H.R. 4401, the Health Care Infrastructure Investment Act of 2000, which calls for the establishment of an advanced informational infrastructure to immediately process certain health benefits claims.[1] In that testimony, we provided our perspectives on (1) the current Medicare part B claims process, (2) the development of an immediate claim, administration, payment resolution, and data collection system and its applications for processing these claims, (3) the application of this system to the Federal Employees Health Benefits Program, (4) the role and composition of a proposed Health Care Infrastructure Commission, and (5) lessons drawn from a failed Health Care Financing Administration (HCFA) information technology (IT) project in the mid-1990s.

This letter responds to your October 10, 2000 request that we provide answers to post-hearing questions related to our July 11 testimony. In performing our work, we provided a draft of this letter to HCFA for technical review. HCFA officials, including those from the Office of Information Services and the Office of Financial Management, orally provided technical clarifications, which we incorporated in this letter, as appropriate. Your questions, along with our responses, follow.

1. **Have Medicare trustees considered improvements in information technology infrastructure that relate to providing accurate epidemiological data and timely payment to providers?**
2. **What specific information technology infrastructure improvements have the trustees considered?**
3. **Aside from the MTS [Medicare Transaction System] failure, what are the trustees doing to ensure that the IT infrastructure meets the needs of Medicare beneficiaries and health care providers?**

[1] *Federal Health Care: Comments on H.R. 4401, the Health Care Infrastructure Investment Act of 2000* (GAO/T-AIMD-00-240, July 11, 2000).

The Social Security Act[2] created the Boards of Trustees for the Medicare Hospital Insurance and Supplementary Medical Insurance Trust Funds (collectively, the Trustees) to carry out fiduciary responsibilities for the funds. Thus, the act requires the Trustees to (1) report to the Congress not later than the first day of April of each year on the operation and status of the Trust Funds during the preceding fiscal year and on their expected operation and status during the current fiscal year and the next 2 fiscal years, (2) report immediately to the Congress whenever the Trustees are of the opinion that the amounts of the Trust Funds are unduly small, and (3) review the general policies for managing the Trust Funds and recommend changes in such policies, including necessary changes in the provisions of law that govern the way in which the Trust Funds are to be managed. The act does not assign the Trustees responsibilities with regard to the operations of the Medicare program, or specifically to the Medicare IT operations or related improvement efforts. According to HCFA officials, the Trustees met 10 times during the 5-year period from 1995 to 1999. The minutes for these meetings indicate that operational issues, such as the development, design, and implementation of Medicare IT systems, were not discussed.

As the HCFA Chief Information Officer (CIO) described in testimony before your Subcommittee, oversight responsibility of HCFA's IT investment and planning processes rests with the HCFA CIO, working in close conjunction with the Department of Health and Human Services' (HHS) CIO and other HCFA senior managers. In his testimony, HCFA's CIO also outlined the agency's efforts toward developing a comprehensive plan for modernizing its systems architecture to meet these needs, such as developing innovative ways to manage data and supporting efforts to improve health outcomes for beneficiaries.

4. The Board of Trustees has the responsibility of overseeing the successful operation of Medicare in its entirety; why would it be beneficial to create a commission specifically to oversee the successful operation of Medicare's IT processing systems?

As discussed above, the duties of the Trustees do not extend to the oversight of Medicare's IT processing systems. Nonetheless, the complex, technical nature of Medicare's IT processing systems warrants continuous, effective planning and evaluation to ensure their ongoing successful operation. Determining the most appropriate methods and persons for carrying out these efforts requires careful consideration. In this regard, as discussed in our testimony, it is important to consider whether adding another organization to the already complicated Medicare process would add to the complexity or confuse accountability for essential planning, monitoring, and evaluation efforts. Nevertheless, if a separate commission were to be created to perform these functions, one possible advantage would be that, unlike the Trustees whose responsibilities focus primarily on long-term funding issues, the commission could focus solely on this extremely critical aspect of administering the Medicare program. In addition, although HCFA devotes significant resources to its IT operations, assigning specific oversight and monitoring responsibilities to a commission of IT, health care, and financial management experts could provide for a more robust, independent evaluation of existing and planned Medicare IT efforts. If such a commission is created, however, care should be taken in determining its specific role to avoid unintended

[2]Sections 1817(b) and 1841(b) of the Social Security Act, 42 U.S.C. § 1395i and § 1395t.

consequences, such as confusion over its authority and responsibilities or duplication of effort.

5. How many claims processing systems exist, and how old are these systems?

As of December 2000, Medicare carriers and fiscal intermediaries use six standard claims processing systems to process Medicare part A and B claims.[3] Each contractor relies on one of these standard systems to process its claims, and adds its own front-end and back-end processing systems. Table 1 provides the name of each standard system, the type of Medicare claims it processes, and the date the system was implemented.

Table 1: HCFA Claims Standard Processing Systems

Name of system	Type of Medicare claim processed	Date of implementation
Arkansas Part A Standard System	part A	1982 – major upgrade in 1994
Fiscal Intermediary Standard System	part A	1990
Multi-Carrier System	part B	1987
Verizon Medicare System	part B	1988
HCFA Part B Standard System	part B	1987
VIPS Medicare System	part B (including durable medical equipment)	1985

Source: HCFA.

6. Are there processing systems in the health care industry or other industries that are analogous in design and purpose to the melded processing systems used by Medicare and its contractors and carriers? If yes, please specify; if no, please explain how HMOs [health maintenance organizations] handle the processing issue for multiple contracts. In particular, please explain how the Federal Employee Health Benefits Program (FEHBP) successfully offers a wide array of health insurance plans without the apparent difficulties that exist within the Medicare claims processing system.

According to the Association For Electronic Health Care Transactions (AFEHCT),[4] the general structure of claims processing systems in the health care industry is similar to the claims processing systems used by Medicare contractors. Namely, in both cases, providers submit claims either directly or through third-party billing systems to the insurance carrier's system, which adjudicates the claims and makes payments through other systems, such as bank systems. According to AFEHCT, processing claims in the private sector health care industry is complex because a provider has to deal with many different benefits contracts and

[3]HCFA is planning to reduce the number of standard processing systems so that there will be only one standard processing system for Medicare part A claims, one for Medicare part B claims, and one for Medicare part B durable medical equipment claims.

[4]AFEHCT is a trade association that addresses technical and policy issues. Its membership includes health claims clearinghouses, health insurers, value-added networks, software vendors, health care data processing companies, practice management companies, data communications systems operators, and credit card issuers.

many different insurance carriers. In the case of Medicare, a provider deals with only a limited number of contractors, and traditional Medicare covers the same standard package of services and requires the same deductibles, coinsurance, and copayment requirements for all beneficiaries.

In the case of FEHBP, the government does not process claims, instead the government contracts with private health care organizations that offer several hundred fee-for-service and health maintenance organization benefit plans to nearly 9 million federal employees, retirees, spouses, and dependents. FEHBP administrators negotiate premiums and benefits with participating health plans, but reimbursing claims is the responsibility of the health care plan organization.

7. Mr. Sparks testified that in some cases one Medicare carrier covers a given procedure while another carrier might not cover the identical procedure at all. How extensive is this problem? Do you have any examples? If so, what should be done to correct it?

Medicare's coverage decisions are based on broad statutory authority given to the Secretary of HHS, which requires that payment be made for items or services that are "reasonable and necessary" for the diagnosis and treatment provided to Medicare beneficiaries. National coverage decisions are issued by HCFA after a thorough assessment of the clinical issues and available data. These decisions are binding on Medicare contractors. In the absence of national decisions for particular services, contractors have the discretion to issue local coverage policies. Specifically, these contractors develop a set of criteria to determine which claims to pay, guided by laws, regulations, Medicare policy manuals, and periodic agency directives. This has resulted in different interpretations of medical necessity in different parts of the country for some services.[5]

We have not performed sufficient work to assess the extent to which variations in local coverage policies among contractors are problematic or simply reflect the complex nature of administering a nationwide program across multiple regions, states, and localities. However, our work has identified specific instances in which different carriers treated similar claims differently. Specifically, in July 2000 we reported that similar claims submitted by ambulance providers could receive different treatment across carriers.[6] To illustrate, in 1998 in New Jersey and Pennsylvania, where local ordinances mandated advanced life support services as the minimum standard of care for all transports regardless of the patient's condition, the carrier reimbursed ambulance providers at that level for all transports. In contrast, in Fargo, North Dakota, which had a similar local ordinance, the carrier paid only

[5]According to HCFA, there are legitimate regional differences in the practice of medicine that can make a national rule inappropriate.

[6]*Rural Ambulances: Medicare Fee Schedule Payments Could Be Better Targeted* (GAO/HEHS-00-115, July 17, 2000).

for basic life support when the patient's condition did not require advanced life support.[7] In late 1998, HCFA established a new mechanism, the Medicare Coverage Advisory Committee, to provide for public participation in the process of establishing national coverage decisions. HCFA has issued a number of new medical policy decisions, based upon this new mechanism, and posts these policies on its web site. In the absence of national decisions for particular services, however, Medicare contractors continue to have the discretion to issue local coverage policies.

8. Why does Medicare still use more than one format for submitting electronic claims?

According to a HCFA official, HCFA implemented a standard electronic format for part A claims in 1983 and 1984 and for Medicare part B claims in 1991. The American National Standards Institute (ANSI)[8] subsequently published an electronic national health care standard, and HCFA directed its carriers and fiscal intermediaries to accept claims in this format as well as in the HCFA format. However, according to a HCFA official, most providers continued to use the HCFA format only, because they were more familiar with it and/or they did not want to incur the cost of upgrading their claims submission software.

By October 2002, providers will be required to use a single electronic format to submit health care claims. The Health Insurance Portability and Accountability Act of 1996 requires the Secretary of HHS to adopt standards for financial and administrative transactions, and data elements for those transactions, to enable health information to be exchanged electronically. In August 2000, HHS promulgated the electronic health care claims standard called for by this law. The health care industry, including HCFA, is required to implement this standard, which largely follows the current ANSI health care claim standard, by the October 2002 deadline.

9. In the case of a rejected claim, at what point does the waste, fraud, and abuse statute come into effect?

The False Claims Act[9] is the federal government's primary civil remedy for improper or fraudulent claims. It applies to all federal programs, from military procurement contracts to health care and welfare benefits. People who "knowingly" submit false claims to the federal government may be found liable under the act for penalties of between $5,000 and $10,000 for each false claim, plus up to three times the amount of the damages caused to the federal program. The act defines "knowingly" to mean that a person (1) has actual knowledge of the

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[7]On June 17, 1997, HCFA published a notice of proposed rule-making that would, among other issues, define as national policy that ambulance payment be linked to the level of services to treat the beneficiary's condition. Because a new ambulance fee schedule was to be negotiated that would define future ambulance payment amounts, HCFA delayed implementation of that policy, but intends to issue a final rule on it shortly.

[8]ANSI serves as administrator and coordinator of the United States private sector voluntary standardization system. ANSI does not develop American National Standards; instead it facilitates their development by establishing a consensus among qualified groups. The Institute represents the interests of about 1,000 company, organization, government agency, institutional, and international members.

[9]31 U.S.C. sec 3729(a) to 3733.

false claim, (2) acts in deliberate ignorance of the truth or falsity of the information, or (3) acts in reckless disregard of the truth or falsity of the information. Even if the government rejected a claim, a violation of the act may have occurred at the point that the false claim was presented. As with most other civil actions, the government can establish its case by presenting a preponderance of the evidence rather than by meeting the higher burden of proof that applies in criminal cases. The act has been applied to cases of improper billing practices, claims for services not rendered, billing of medically unnecessary services, misrepresenting eligibility or credentials, and substandard quality of care.

Although less commonly used in this context, the Civil Monetary Penalties Law and the Program Fraud Civil Remedies Act also provide civil and administrative sanctions against the submission of false claims under Medicare, as well as other programs. Both of these laws prohibit the presentation of false claims and do not require payment by the government for sanctions to be imposed.

10. Does the complexity of the processing system contribute to the difficulty providers experience in getting claims paid? Does the complexity of the system contribute to the difficulty providers have in submitting clean claims?

According to HCFA data on claims processed during fiscal year 1999, about 81 percent of Medicare part A and part B claims processed were paid and, of those paid, over 99 percent were processed as "clean" claims.[10] Clean claims were paid on average within 17 days. Much of this time is due to the mandatory claim payment delay provisions contained in the Social Security Act, which prohibits the payment of Medicare claims until after 13 calendar days from the date received if electronically submitted or until after 26 calendar days if manually submitted.[11] A HCFA official estimated that, on average, clean part A and part B claims could be processed and paid or rejected within 3 to 5 business days after the receipt date without this mandatory payment delay.

We could not determine the extent to which the complexity of Medicare's claims processing systems contributes to claims being denied. However, HCFA's analysis of part B denied claims indicates that other problems can cause such claims to be denied. For example, according to HCFA data, over 70 percent of denied part B claims in fiscal year 1999 were attributed to duplicate claims, claims for services that are not medically necessary or covered by Medicare, and incomplete claims. Furthermore, based on our review of claims data for ambulance services provided in calendar year 1998, rates of payment denial varied widely among carriers.[12] We concluded that different practices among carriers, including increased attention to potential fraud, differences in local coverage policies, contractors' inappropriate

[10]In obtaining performance information from its contractors, HCFA defines a clean claim as one that did not require the contractor to investigate or develop outside the contractor's Medicare operation (e.g., requesting additional information from providers) on a prepayment basis.

[11]Sections 1816(c)(3) and 1842(c)(3) of the Social Security Act (42 U.S.C. 1395h(c)(3) and 1395u(c)(3)).

[12]GAO/HEHS-00-115, July 17, 2000.

application of Medicare criteria, and providers' lack of information about how to fill out claims, contribute to variations among their rates of denied claims.

11. Is the coding system difficult to use? Please rate the complexity of Level I codes versus Level II codes versus Level III codes. Does the "carrier discretion" allowed for Level II codes cause unequal treatment of claims by different carriers? How often do the code systems for medical procedures change? Why do the codes change on this schedule? Who makes the final decision to change or not change the codes?

As described in our July 11, 2000, testimony, HCFA's Common Procedure Coding System uses three levels of codes:

- Level I codes are the American Medical Association's Physician's Current Procedural Terminology, which consists of a list of 5-digit codes for most of the services performed by physicians. These codes are used to bill for most procedures and services but have limited selections for describing supplies, materials, and injections.

- Level II are HCFA national codes that supplement the level I codes and are used to bill for a range of services and supplies, such as vision services and surgical supplies. These codes have a uniform description nationwide, but due to what is known as "carrier discretion," their processing and reimbursement are not necessarily uniform.

- Level III are local codes developed by individual Medicare carriers. The codes are often used to describe new services, supplies, and materials (which may be included as level I or II codes in future years), as well as to report procedures and services that have been deleted from Current Procedural Terminology codes but are still recognized and reimbursed by the carrier.

Reflecting the complexities of, and variations in, providing the multitude of health care services to Medicare beneficiaries, the coding system is inherently difficult to use because it (1) attempts to identify codes for all accepted medical procedures, including codes to describe minor procedures that are components of more comprehensive procedures, and (2) changes every year to reflect refinements or advances in technologies and practices.

Regarding the comparative complexity of the different code levels and the extent of the use of "carrier discretion," we have not performed work to address these questions. However, conducting such reviews could provide insights into the fundamental characteristics associated with how medical treatment codes and coding systems are established, revised, implemented, and monitored.

12. What is the status of HCFA's effort to reduce its four standard Medicare part B systems to two? Will HCFA meet its 2003 deadline?

As previously discussed, carriers currently use one of four standard systems to process Medicare part B claims. Of the four systems, HCFA selected the Multi-Carrier System to serve as the standard part B claims processing system for nondurable medical equipment claims. HCFA had placed a moratorium on this transition effort because of the Year 2000

problem. Since this problem has been addressed, HCFA's transition of carriers using the Verizon standard system to the Multi-Carrier System has begun and is due to be completed by February 2002. The carriers that use the other two standard part B systems are currently due to transition to the Multi-Carrier System by August 2003 and March 2004, respectively. However, according to HCFA, funding issues may cause delays in transitioning these two systems. With respect to part B claims for durable medical equipment, in 1998, HCFA transitioned all durable medical equipment regional carriers systems to a single standard system (VIPS Medicare System).[13]

13. Was the MTS system mandated by Congress? Who received the $80 million for the work that was done? Who had direct oversight responsibility for the work?

MTS was not specifically mandated by law, although HCFA provided Congressional staff with information on the status of the initiative. MTS was HCFA's vision for a single, unified system to replace its existing standard systems. This single system would have integrated data from Medicare part A and part B and managed care and provided a comprehensive view of billing practices. The goals of MTS were to protect program funds from waste, fraud, and abuse; allow better oversight of Medicare contractor operations; improve service to beneficiaries and providers; and reduce administrative expenses. Primary oversight for MTS rested with the Director of HCFA's Bureau of Program Operations. In HCFA's last reorganization, this position was abolished.

HCFA terminated the primary MTS contract in August l997. In September l997, we reported that, at that time, HCFA had spent about $80 million--$50 million for software development and $30 million for internal HCFA costs. Table 2 provides the most recent reported information on what HFCA has paid thus far to MTS contractors.

Table 2: HCFA Payments to MTS Contractors as of Early November 2000

Contractor	Type of work performed	Amount paid
Verizon (formerly GTE)	Design, develop, and implement system	$48,611,360
Coopers & Lybrand	Plan, track, monitor, control and report progress	795,433
SETA Corporation	Independent testing support	1,141,049
Averstar (formerly Intermetrics)	Independent validation and verification	3,866,140
Total		**$54,413,982**

Source: Health Care Financing Administration, Office of Internal Customer Support, Acquisition and Grants Group. These amounts were not verified by GAO.

The SETA Corporation contract amount is final. The other contracts are still open, so these amounts may change. For example, in May 1998 Verizon submitted to HCFA a proposal to close out the contract, which stated its final cost as $51,216,433. As of mid-December 2000, HCFA had not agreed on the final cost included in this proposal. According to a HCFA

[13]The part of the VIPS Medicare System used to process part B claims other than durable medical equipment claims will not be used once the transition to the Multi-Carrier System is completed. When the standard system transitions are completed, HCFA expects to have one standard processing system for Medicare part A claims, one for Medicare part B claims, and one for Medicare part B durable medical equipment claims.

contracting official, HCFA recently received requested documentation supporting the proposal amounts from Verizon and plans to begin final negotiations shortly.

14. Is HCFA able to divine medical data from the Common Working File (CWF)? Does a system exist outside of HCFA that allows the divining of statistical data?

Medicare carriers and fiscal intermediaries systems' interface with HCFA's CWF—a set of nine databases containing beneficiary information for specific geographic regions—to authorize claims payments and determine beneficiary eligibility. CWF maintains beneficiary information, such as entitlement and utilization data and specific claims history that includes medical data.[14] The medical data maintained in CWF are used in editing claims, for example, to determine whether a claim is a duplicate. According to HCFA, CWF data are not organized to support statistical analysis.

CWF provides individual beneficiary claims data to HCFA's National Claims History file, which is used as the source of statistical information on Medicare medical data. HCFA officials were not aware of any system outside HCFA where this type of data could be obtained.

15. Are the options available to FEHBP subscribers more or less complex than the beneficiary options in the Medicare program?

Traditional Medicare covers the same standard package of services and has the same deductibles, coinsurance, and copayment requirements for all beneficiaries although it has two distinct parts (part A and part B) that cover complementary sets of benefits. Medicare managed care providers must cover at least the same services as traditional Medicare. Many Medicare managed care providers offer additional benefits, such as prescription drugs. In contrast, FEHBP does not require uniform benefits. Although all plans offer inpatient hospital and outpatient medical coverage as well as certain services required by the Office of Personnel Management, specific benefits vary. As a result, coverage can vary substantially depending on the plan.

16. Would it be feasible to replace the existing Medicare program with a FEHBP-style of insurance program?

The two defining elements of an FEHBP-type premium support system are the establishment of premium levels for plans through negotiations between the program and plans and the linking of beneficiaries' contributions to the premiums of the plans they join. In May l999, we testified on a report by the National Bipartisan Commission on the Future of Medicare that discussed incorporating Medicare as another plan under the FEHBP-type premium support system.[15] Under this scenario, traditional Medicare would propose and negotiate

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[14]Certain claims data are periodically purged from CWF. Requirements to purge CWF data vary by type of claim. For example, outpatient, durable medical equipment, prosthetics, and physician claims are normally purged every six months. Inpatient, hospice, and home health claims are not purged. According to HCFA, it approves all purge requests.

[15]*Medicare: Options for Reform* (GAO/T-HEHS-99-130, May 26, 1999).

premiums like any other plan and would be expected to be self-financing and self-sustaining. Recognizing the challenge the latter requirement creates, the commission would also provide traditional Medicare more flexibility to manage costs using tools similar to those proposed for fee-for-service modernization.[16]

Incorporating traditional Medicare as another plan in an FEHPB-type premium support system would put all plans on an equal footing and maximize beneficiary awareness of costs. However, the sheer size of the traditional Medicare program would create questions, including those concerning plan flexibility and fund solvency. Moreover, it would be necessary to address the dilemma of how to guarantee traditional Medicare's solvency in the context of an FEHBP-type premium support system.

An FEHBP-type premium support system increases the importance of effective program management and design. In particular, the ability to adjust premiums based on risk to reflect variation in the health status of beneficiaries joining different plans becomes paramount. Participating plans that attract a disproportionate number of more seriously ill and costly beneficiaries would be at a competitive disadvantage if their premium revenues were not adjusted adequately. In turn, enrollees in those plans may find services compromised by the plans' financial situation. Inadequate risk adjustment may be a particular problem for the traditional Medicare plan, which may function as a refuge for many chronically ill persons who find selecting among plans challenging and opt for something familiar.

Another serious management and design issue for a premium support system would be how to adjust for differences in local medical prices and geographic differences in the use of services. Without such adjustments, beneficiary premiums in high-price areas will tend to be above the national average. Adjusting the government contributions for input price differences can help ensure fair price compensation between local and national plans and avoid having beneficiaries pay a higher premium or higher share of a premium simply because they live in a high-price area. Similarly, because use of medical services varies dramatically among communities due to local medical practices, under a premium support approach plan, premiums in high-use areas will likely exceed the national average. Whether, or to what extent, to adjust the government contribution for this outcome is a matter of policy choice. Without an adjustment, beneficiaries living in high-use areas who join local private plans could face substantial out-of-pocket costs. Consequently, private plans in such areas might have difficulty competing with a traditional Medicare plan that charged a fixed national premium.

17. Mr. Willemssen's testimony states that the Medicare Trust Fund earns 7 percent interest on Medicare funds that are held in the Treasury. How does that rate compare to the rate of interest earned by the Social Security Trust Fund?

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[16]Proposals to modernize fee-for-service Medicare aim at providing HCFA flexibility to take advantage of market prices and introduce some management of service utilization. This concept was tested under HCFA's Centers for Excellence demonstrations, in which hospitals and physicians agreed to provide certain procedures for negotiated all-inclusive fees.

As the Managing Trustee of each fund, the Secretary of the Treasury sets the interest rate on investments held in the Social Security trust funds (the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds) and the Hospital Insurance and Supplementary Medical Insurance Trust Funds. Generally, the Secretary is required by law to set the interest rate at a rate equal to the average market yield for the preceding month on all marketable interest-bearing obligations of the United States then outstanding that are not due or callable within 4 years. The maturities of the obligations are determined by the Secretary with due regard for the needs of each fund. Accordingly, although interest rates are established consistently for these trust funds, the Secretary's discretion as to determining the needs of each fund as well as the amounts available to invest may result in variations in the amount of investments held at various interest rates.

The interest rate on investments held in the Federal Old-Age and Survivors Insurance and Hospital Insurance Trust Funds, as of September 30, 1999, ranged from 5.875 to 10.375 percent per annum. The interest rate on investments held in the Federal Disability Insurance and Supplementary Medical Insurance Trust Funds, as of September 30, 1999, ranged from 5.875 to 8.75 percent per annum. The combined weighted average annual interest rates for the Social Security and Medicare trust fund investments held, as of September 30, 1999, were 6.78 and 7.17 percent, respectively. Differences in these weighted average annual interest rates reflect the variation in the relative proportions of investments held in each trust fund as of September 30, 1999, at the various rates of interest within the ranges indicated above.

18. Did the recent I LOVE YOU, Melissa, etc., viruses get into HCFA's computers?

In May 2000, we testified on the impact of the "ILOVEYOU" virus on federal agencies.[17] This virus was the latest in a series of Internet-based episodes that had caused serious disruptions to computer-based operations at both private businesses and government agencies. We testified that HHS was inundated with about 3 million malicious messages. The departmental components experienced disruptions in e-mail service ranging from a few hours to as many as 6 days, and departmentwide e-mail communication capability was not fully restored until after May 9.

With respect to HCFA, an IT security official told us that the "ILOVEYOU" virus did not contaminate its systems. The official said the virus had no adverse effects on any of the workstations, because the e-mail application used at HCFA was not capable of executing the Visual Basic Script file, which is how the "ILOVEYOU" virus was executed.[18] The official also said that the Melissa virus was detected and there were no incidents.

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[17]*Information Security: "ILOVEYOU" Computer Virus Emphasizes Critical Need for Agency and Governmentwide Improvements* (GAO/AIMD-00-171, May 10, 2000) and *Critical Infrastructure Protection: "ILOVEYOU" Computer Virus Highlights Need for Improved Alert and Coordination Capabilities* (GAO/T-AIMD-00-181, May 18, 2000).

[18]Visual Basic Script is a subset of Microsoft's Visual Basic program language intended for use in World Wide Web browsers and certain other applications.

19. Have there been many unauthorized releases of personal medical information from HCFA's computers? Are such releases against the law? Were any such releases prosecuted?

Unauthorized releases of personal medical data are normally identified as a result of complaints or other activities that raise questions leading to an investigation of whether an improper release of information has occurred. Since some unauthorized releases may have occurred that have not led to complaints or raised such questions, the extent of this problem is unknown.

Unauthorized releases of personally identifiable health information by federal agencies or their employees are a violation of the Privacy Act of 1974. HCFA officials clarified, however, that secondary releases[19] are not punishable under the Privacy Act unless such acts are committed under false pretenses. State laws also protect the privacy of certain personally identifiable medical information, but these laws vary significantly in their scope and the specific protections they afford.

Recognizing the need to prevent unauthorized releases of medical information, the Congress passed the Health Insurance Portability and Accountability Act of 1996, which called for the establishment of a uniform set of protections that all users of confidential medical information must abide by and for substantial fines and up to 10 years in prison for the misuse or improper disclosure of identifiable health information. On December 20, HHS issued the final privacy regulation called for by this act, which will become fully effective in 2 years. The regulation (1) limits the non-consensual release and use of identifiable private health information, (2) gives patients new rights to access their medical records and to know who has accessed them, (3) restricts disclosures of health information, (4) establishes criminal and civil sanctions for improper use or disclosure, and (5) establishes new requirements for access to records by researchers and others.

HCFA officials recently told us that there have been no prosecutions for unauthorized releases of personal medical information from HCFA's computers. Further, HCFA officials told us that their investigations of known cases have found no secondary releases involving false pretenses. Rather, HCFA found that secondary releases of data had resulted from misunderstandings of permissible disclosures.

In July 1999, we reported[20] that HCFA's policies and practices regarding disclosure of personally identifiable health information were generally consistent with the provisions of the Privacy Act and that there had been few complaints about Privacy Act violations concerning personal medical information. However, we concluded that weaknesses in the implementation of HCFA's policies could potentially compromise the confidentiality of health information on Medicare beneficiaries. Further, because HCFA did not routinely monitor contractors and others, such as researchers, who use personally identifiable Medicare

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[19]Secondary releases refer to instances in which persons not employed by the federal government who are authorized to have data under a HCFA agreement misuse or re-release such data.

[20]*Medicare: Improvements Needed to Enhance Protection of Confidential Health Information* (GAO/HEHS-99-140, July 20, 1999).

information, its ability to prevent unauthorized disclosures or uses and to provide timely corrective action for those that might occur was not assured.

HHS' Office of the Inspector General continues to report vulnerabilities in HCFA's and its contractors' management of electronic information that could lead to unauthorized individuals reading, disclosing, or tampering with confidential information. Further, HHS acknowledged Medicare electronic data processing control weaknesses in its fiscal year 1999 Accountability and Federal Managers' Financial Integrity Act Reports and outlined plans to correct these weaknesses during fiscal year 2000. Results from reviews of Medicare systems performed in conjunction with the audit of HCFA's fiscal year 2000 financial statements currently under way will provide insights regarding the extent to which these weaknesses have been addressed.

20. In your testimony, you mentioned that removing the 14-day mandatory delay in Medicare reimbursements would result in an ongoing cost to the U.S. Treasury. Dr. Christoph, however, contended that removing the mandatory delay in payments would create a substantial "one-time" charge to the Treasury. Please explain the basis for your conclusion.

Eliminating the mandatory payment delays would lead to a reduction in trust fund balances resulting from (1) the one-time liquidation of trust fund investments to facilitate the transition to a new "no payment delay" environment and (2) an ongoing reduction in interest earnings due to the reduced level of funds available for investment that would result from this transition. Because the balance of trust fund investments would remain at this reduced level, future earnings would be correspondingly reduced. The ongoing nature of this cost represents the amount of interest lost on those investments that continue to be no longer available to earn interest. This cost would continue in perpetuity as long as payments were not being retained to meet a mandatory delay.

21. The "payment floor" or "payment legs" were established by OBRA [Omnibus Budget Reconciliation Act] 1987, and amended by OBRA of 1993. Looking back through Senate Finance Committee hearing testimony, committee discussions and the committee reports regarding the purpose of the legs, at no point was "fraud prevention" or "prepayment medical review" or any such concept discussed as motivation for implementation. While there was some discussion between Dr. Desmarais and Senator Proxmire of moving to standards established by the Prompt Payments Act, in the end, the legs were implemented as a budgetary consideration to "save" the government money. The savings amounted to approximately $323 million in FY 1988. So, if we repealed the payment legs, how fast could HCFA pay clean claims (assuming time for edits, batch processing, etc.)? How about all claims? In other words, what would be the self-imposed payment floors? If we were to amend the payment legs gradually over the course of the legislation as the infrastructure was gradually improved/put into place, what recommendations would you make? Would [it] be helpful to use the 5-, 7- and 10-year timetable that the bill lays out already for claims processing.

A HCFA official estimates that, given current operational processes, on average, clean part A and part B claims would be processed and paid or rejected within 3 to 5 business days of the receipt date if the mandatory payment delays were eliminated. Further, this official estimates that, on average, all claims (which include clean and other paid claims and denied claims) would be processed within 10 business days if the mandatory payment delays were eliminated.

Because of the significant volume and dollar value of Medicare claim payments, a decision to change the current provisions establishing a mandatory delay of claim payments should involve a careful evaluation of the potential costs associated with such a change. Two significant factors to consider, as described in our testimony, are (1) direct costs (such as lost interest earnings) and (2) possibly more importantly the risk of losses in the form of improper payments that may occur due to a reduction in time for performing program safeguard activities.[21] In addition, further evaluation should be performed to consider other possible costs and risks of amending current claim payment delay provisions; if such amendments are made, various implementation and monitoring alternatives should be carefully considered. For example, since risks of improper payments may vary among various types of claims and providers, efforts to pay claims more quickly may need to be coordinated with efforts to strengthen program safeguards. In addition, conducting pilot tests at selected contractors or for selected types of claims could provide useful insights and a basis for more effective evaluation and implementation, including the most appropriate timetable for implementing changes.

22. Senator Lugar spoke in his testimony about "spurring private sector investment" and "creating a system of systems" similar to ATM networks. Can you comment on that briefly from your perspective? I am interested also to hear what you think about the role of private companies, such as RealMed or SpiderMed.Com.

As we noted in July 2000,[22] the Automated Teller Machine (ATM) network is indeed a "system of systems" in which multiple computer systems owned by card-issuing banks, ATM owners, ATM networks, and third-party processors work together over a network to allow customers to withdraw cash from their accounts. Most cardholders conduct transactions at terminals owned by their card-issuing bank (referred to as *on-us transactions*). When the cardholder requests the transaction, the terminal driving processor transmits the message through the bank's network to the authorization processor. The authorization processor checks the cardholder's account and concurrently provides authorization and settlement of the transaction. The authorization message is then transmitted to the ATM.

The transaction flow is a bit more complicated when a cardholder performs an electronic fund transfer at an ATM that is not owned by the card-issuing bank (referred to as a *foreign ATM transaction*). The cardholder requests the transaction, and the terminal driving

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[21]Our recent report, *Financial Management: Billions in Improper Payments Continue to Require Attention* (GAO-01-44, October 27, 2000), highlights the risks associated with expediting payments and the importance of strengthening controls and implementing state-of-the-art information management systems.

[22]*Automated Teller Machines: Issues Related to Real-time Fee Disclosure* (GAO/GGD/AIMD-00-224, July 11, 2000).

processor routes the message through the ATM owner's network to a regional or national network. The message is then routed through the internal network of the cardholder's bank to the authorization processor. The authorization processor checks the cardholder's account, authorizes the transaction, and provides settlement of the account. The authorization message is then transmitted to the ATM via the bank's network, a regional or national network, the owner's network, and the terminal driving processor.

The kind of processing that an ATM network performs is simpler than medical claims processing. ATM processing involves relatively simple business rules such as checking account balances and authorizing payment. In contrast, medical claims processing requires addressing, for example, a claimant's eligibility, benefits, deductibles, and copayments, and the consistency of the claim with the patient's past history, age, or gender.

As we testified in July, although it might be feasible to develop an immediate claim, administration, payment resolution, and data collection system to be used by the Medicare part B program, such a system would significantly change the government's current processes, because it would require the real-time processing of certain elements of the claims process that are currently performed in batch mode or manually.[23] In the abstract, a real-time Medicare part B claims process could be achievable if appropriate systems development policies and techniques are used. Although more beneficiaries might have to pay their copayments immediately, such a process could provide health care providers and beneficiaries with several benefits—primarily the immediate notification of approved or denied claims. However, without appropriate safeguards, a real-time claims processing system could involve serious risks, because it opens the process to a possible rise in the number of improper Medicare payments.[24] Accordingly, any real-time processing system would have to ensure that current program safeguards are not compromised, which could be problematic since some of these safeguards hinge on manual reviews performed by claims examiners. In addition, the technical and cost risks associated with developing a real-time claims processing system could be considerable.

With respect to the question related to the private sector, private companies play a large role in various aspects of medical practice. For example, private companies provide systems that physicians use to manage their day-to-day activities by doing paperless transactions, such as checking eligibility and referral authorizations, referring patients to specialists, and sending secure electronic prescriptions. The private sector also plays a major role in the Medicare program. For example, title XVIII of the Social Security Act required HCFA to contract with the private sector for claims processing and payment functions. This requirement has led to a large contractor network comprised of insurance companies responsible for processing Medicare claims in given states.

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[23]Real-time mode relates to processing that responds to an external event within a short and predictable time frame. Batch mode relates to processing application programs and their data individually, with one being completed before the next is started.

[24]HHS' Office of the Inspector General estimated improper Medicare fee-for-service payments at $13.5 billion for fiscal year 1999.

We are sending copies of this letter to Senator Richard Lugar and to Representatives Jim Turner and Douglas Ose, Ranking Minority Member and Member, respectively, of the Subcommittee on Government Management, Information, and Technology, Committee on Government Reform. This letter is also available on GAO's home page at *http://www.gao.gov*.

If you or your staff have any questions regarding this letter, you can contact Joel Willemssen at (202) 512-6253 or by e-mail at *willemssenj@gao.gov* or Gloria Jarmon at (202) 512-4476 or by e-mail at *jarmong@gao.gov*. Staff who assisted in gathering this information include Aditi Archer, Nabajyoti Barkakati, Johnny Clark, Kay Daly, James Douglas, James Kernen, Linda Lambert, and Cynthia Scott.

Sincerely yours,

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