**Department of Health and Human Services** 

## **OFFICE OF INSPECTOR GENERAL**

## Y2K READINESS OF MANAGED CARE ORGANIZATIONS



JUNE GIBBS BROWN Inspector General

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#### PURPOSE

To examine the Year 2000 readiness of Medicare + Choice managed care organizations and provide information for the Health Care Financing Administration.

#### BACKGROUND

The Year 2000 (Y2K) problem stems from the way computers have traditionally stored dates through the use of an "implied century." To save memory and storage space, programmers have conventionally used only two digits, rather than four, in year date fields. The Health Care Financing Administration (HCFA) has made the Y2K initiative its number one priority and is committed to making sure that its date-sensitive systems and those of its business partners are ready to verify eligibility, enrollment, coverage and payment.

Some of the key computer systems at risk among healthcare providers that could affect the 6.5 million Medicare beneficiaries enrolled in managed care are: premium billing systems, medical information systems, and managed care membership enrollment and disenrollment systems. Failure of these systems to correctly process data could negatively impact beneficiary access to care, service delivery, efficient Medicare reimbursement and quality of care.

We sent surveys to 407 Medicare Managed Care Organization (MCO) contracts in January and February of 1999. We received 219 surveys, representing 310 MCO contracts, for a response rate of 76 percent.

#### FINDINGS

## Managed Care Organizations appear to be moving toward internal Y2K compliance

Currently, 22 percent of MCOs claim being Y2K ready. Of the 78 percent of MCOs that are currently not Y2K ready, nearly two-thirds report that all of their computer systems will be Y2K ready by December 31, 1999. Almost all MCOs have assessed their Y2K readiness with over half having tested more than two-thirds of their computer systems, although development and testing of contingency plans is lagging.

#### Most MCOs are unaware of their business partners' Y2K readiness

The majority of MCO respondents have discussed the possible millennium risks with their medical providers and subcontractors. It appears that these discussions may have been largely information sharing since most MCOs report that they are unsure of the Y2K

readiness of their medical providers and subcontractors. Less than one-quarter of MCOs report testing data exchanges with two-third or more of their medical providers and subcontractors.

## Differences in Y2K readiness, assessment and testing exist based on tax status and size of MCOs

Currently, 22 percent of all MCO respondents claim to be Y2K ready. However, when the tax status of the MCO is taken into consideration, 26 percent of for-profit MCOs claim to be Y2K compliant compared to 16 percent of not-for-profit. In addition, more large size plans are Y2K compliant compared to small and medium size plans. Also, more large and for-profit MCOs have assessed 100 percent of their systems for Y2K readiness.

#### **Agency Comments**

We received comments from the Health Care Financing Administration. Their comments are included in Appendix D. The HCFA is conducting an outreach effort to address the preparedness of MCOs and is monitoring the MCOs' business continuity and contingency planning efforts. As part of this monitoring, HCFA is directing MCOs to submit their contingency plans to HCFA by July 15, 1999. The HCFA has also awarded a contract to an Independent Verification and Validation firm to provide assistance in conducting onsite visits to numerous MCOs to assess their Y2K readiness.

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#### PURPOSE

To examine the Year 2000 readiness of Medicare + Choice managed care organizations and provide information for the Health Care Financing Administration.

#### BACKGROUND

The healthcare industry is a complex array of public and private enterprises with many interdependencies among various Federal, State and local governments and key partners. Partners that include, but are not limited to, managed care organizations, physicians, healthcare facilities, durable medical equipment suppliers, clinical laboratories, biomedical equipment and device manufacturers and sundry other support services.

The problem stems from the way computers have traditionally stored dates through the use of an "implied century." To save memory and storage space, programmers have conventionally used only two digits, rather than four, in year date fields. When the calendar flips over to January 1, 2000, many computer systems will recognize the year "00" as 1900 and applications will either stop running or produce unpredictable results. Computer systems that are not "Y2K compliant" simply will not be able to recognize dates occurring after 1999 (e.g., "01" will be recognized as 1901 rather than 2001). These computer systems will not be able to process date and time sensitive data from one century into another or between centuries.

Some of the key computer systems at risk among healthcare providers that could affect the 6.5 million Medicare beneficiaries enrolled in managed care are: premium billing systems, medical information systems, and managed care membership enrollment and disenrollment systems. Failure of these systems to correctly process data could negatively impact beneficiary access to care, service delivery, efficient Medicare reimbursement and quality of care. Also at risk for failure are medical devices and scientific laboratory equipment that have software applications or embedded chips using two-digit fields to represent the year. Equipment failures, especially those that provide misinformation that goes undetected, could possibly lead to false diagnoses that harm beneficiaries and delay needed care.

The General Accounting Office's (GAO) "Year 2000 Computing Crisis: An Assessment Guide" purports that, for Federal agencies to meet the Y2K deadline, assessment should have been completed in mid-1997 and "renovation work should be done by mid-1998 to allow sufficient time for validation and implementation."

Though perhaps not as complex or problematic as government program systems, managed care organizations (MCOs) are considered especially vulnerable to Y2K problems due to the myriad business systems they operate. These are systems that are crucial to the ongoing interface necessary to communicate with corporate and government payer

sources and accounts-payable balances with physicians, hospitals, and other medical and non-medical providers and subcontractors.

#### Meeting the Y2K Challenge

The Health Care Financing Administration (HCFA) has made the Y2K initiative its number one priority and is committed to making sure that its date-sensitive systems and those of its business partners are ready to verify eligibility, enrollment, coverage and payment. The HCFA defines Y2K compliant as:

"...information technology that accurately processes date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the nineteenth, twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations. Furthermore, Year 2000 compliant information technology, when used in combination with other information technology, shall accurately process date/time data if the other information technology properly exchanges date/time data with it."

Meeting the Y2K challenge requires identifying, renovating and testing all computer and information systems to assure the transition from a six-digit date (12/31/99) to an eight-digit date (12/31/1999) by January 1, 2000. Some examples of critical dates include:

- the date a beneficiary became eligible for Medicare,
- the date a patient was admitted or discharged from a hospital,
- the date a wheelchair rental began, and
- the date an enrollee entered a Medicare managed care plan.

A trouble-free transition into the new millennium is key to meeting the needs of Medicare beneficiaries and providers. At stake are efficient reimbursement and beneficiaries' access to, and the timeliness and quality of, health care. The HCFA advises its contracting MCOs to review the GAO Assessment Guide as an aid to becoming Y2K compliant. The HCFA advocates using the following five proactive steps to identify and address potential impacts presented by the Year 2000 challenge:

- 1. **Awareness** inventory all hardware and software systems on the potential Y2K impact.
- 2. **Assessment** determine the Y2K readiness of these systems for operation beyond 12/31/99.
- 3. **Renovation** update or replace systems and software programs as needed to ensure operations will be Y2K ready.
- 4. **Testing** test existing and newly purchased systems and software to verify they work.
- 5. **Contingency Planning** develop business contingency plans for operations beyond 12/31/99, just in case something goes wrong.

#### Managed Care Organizations' Millennium Compliance Responsibilities

Effective January 1, 1999, The Balanced Budget Act of 1997 established a new Medicare + Choice program that expands the health insurance options available to Medicare beneficiaries. The options now include an array of health plans and delivery systems beyond those that were previously available under the Medicare program. These new choices will offer beneficiaries health plan options similar to those available to the non-Medicare population.

The HCFA has requested their Medicare + Choice managed care organizations to make Y2K compliance a top priority. They have advised MCOs to assess the following business components:

- Applications (including cross-business applications and all external interfaces).
- ► Databases.
- Computer Infrastructure (including hardware, system software, telecommunications, and date dependent functions such as passwords, accounts and software licenses).
- ► Non-Information Technology Systems (including physical plant security, card entry systems, elevator systems, environmental control systems).

In a Managed Care Millennium Compliance Letter dated September 17, 1998, HCFA delineates the following Year 2000 compliant responsibilities for their contracting MCOs:

- Complying with the enrollment and payment data exchange processes requirements as outlined in HCFA's Operational Policy Letter 98.068. (In essence, MCOs are to update all "date/time" fields in the record layouts of the Enrollment and Disenrollment Transaction and the Transaction Reply/Monthly Activity Report Data Format to record a four digit year.)
- Clearly defining all internal and external systems and interfaces requiring compliance (membership systems, claims systems, medical record systems, pharmacy and lab systems, exchanges between delegated groups, etc.).
- Performing a thorough risk assessment.
- Identifying all involved parties and entities with whom data is exchanged and assuring that the defined requirements are clearly understood by these parties.
- Ensuring that providers, suppliers, and beneficiaries are aware of the Y2K compliant issues and problems that may arise.
- Ongoing communications with trading partners with whom there is a data exchange to assure that they are taking the appropriate measures toward Y2K compliance.
- Developing implementation plans and testing schedules.
- Performing extensive testing.
- Developing an extensive contingency plan.

In addition to the above responsibilities, HCFA will require MCOs to: (1) "...certify that they understand HCFA's Y2K compliant definition and have tested all of their data systems/interfaces to ensure Y2K compliance," and (2) "...have a contingency plan in place in the event that internal organization or key external business partner systems fail."

#### **Other Office of Inspector General Work**

The Office of Inspector General (OIG) has also conducted surveys of hospitals, nursing homes, home health agencies, durable medical equipment suppliers and physicians to examine the Y2K readiness of these providers. The results of these surveys can be found in an OIG report entitled *Y2K Readiness of Medicare Providers*, OEI-03-98-00250.

#### METHODOLOGY

The purpose of this inspection was to gather information from Medicare + Choice contractors regarding their Y2K preparedness. We developed the survey instrument in cooperation with the Health Care Financing Administration, the Health Insurance Association of America and the America Association of Health Plans. Based on discussions with HCFA and with the intent to achieve a higher response rate, the survey was anonymous with no tracking of respondents.

We received from HCFA a list of 412 Medicare + Choice contracts that were in effect January 1, 1999. Some organizations have multiple Medicare + Choice contracts with HCFA, we decided to send a survey for each contract. After reviewing the information provided by HCFA, we determined that five contracts did not have complete address information. We did not send a survey to these contracts.

On December 28, 1998, we sent postcards to the 407 Medicare + Choice contractors alerting them that we would shortly be sending a survey on their Y2K preparedness. On January 4, 1999, we sent a survey along with a cover letter and a self-addressed, stamped envelop to 407 contractors. We sent a follow-up postcard on January 19, 1999. Another survey package was sent on February 8, 1999 to all Medicare + Choice contractors, except those contractors where the organization voluntarily identified themselves on a returned and completed survey.

For those organizations that have multiple contracts with HCFA, we allowed them to respond once for the organization. We asked all organizations to inform us about the number of contracts for which they were responding. We received 219 surveys, representing 310 contracts, that were used in our analysis for a response rate of 76 percent.

In addition to those organizations that completed and returned our survey, five organizations responded with form letters regarding the Y2K readiness. These five organizations represent 41 contracts. We did not include their responses in our survey analysis. We also received two letters back from organizations for other reasons. Seven surveys were returned as having no forwarding address.

Because of the anonymity of the survey, we were only able to conduct a limited nonresponse analysis to determine if the responders were different than the non-responders. Through the survey, we identified the tax status of the contractors that responded. We compared the response rate for not-for-profit and for-profit MCOs to the overall percentage of not-for-profit and for-profit MCO contracts. We found no statistical evidence of bias based on the tax status of the contract. For more information on our nonresponse analysis, please see Appendix A. We have included as Appendix B a glossary of terms used in the report. We have also included as Appendix C a copy of the questionnaire that we used along with the overall survey results.

#### Scope

We did not assess the data exchange between HCFA and the Medicare + Choice organizations. We also did not examine issues that dealt with the potential impact of Y2K-related problems on Medicare beneficiaries access or quality of care. The data analyzed in this report was furnished by MCOs and was not verified for accuracy.

We conducted our review in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

## FINDINGS

## MCOs appear to be moving toward internal Y2K compliance

#### Currently, 22 percent of MCOs report being Y2K ready

Overall, 22 percent of MCOs claim that they are currently Y2K ready. Yet, less than half of these MCOs have tested all of their computer systems to ensure that they accurately process time and dates. In addition, only 72 percent of these MCOs report that they have completed assessing all of their computer systems for Y2K readiness. Of the MCOs that report that they are currently Y2K compliant, 56 percent have contracted out for an independent verification and validation assessment of their computer systems' Y2K readiness.

## Most MCOs report that all of their computer systems will be Y2K ready by December 31, 1999

Of the 78 percent of MCOs who report that they are currently not Y2K ready, 65 percent claim that 100 percent of their computer systems will be Y2K compliant by December 31, 1999; another 34 percent of MCOs report that between 67 to 99 percent of their computer systems will be Y2K ready by December 31, 1999.

Almost half (45%) of all our MCOs report that they have contracted with an outside organization to perform an independent verification and validation assessment of their Y2K readiness. The HCFA strongly recommends MCOs follow this course of action to ensure Y2K compliance.

#### Almost all MCOs have assessed their Y2K readiness

Almost all (93%) MCO respondents report having taken the first step of identifying Year 2000 risks and assessing the potential impact of these risks to their organizations. Elemental in this assessment is the prioritizing of mission-critical systems for Y2K conversion. Nearly all (95%) of our MCO respondents have assessed more than two-thirds of their computer systems, with 56 percent claiming to have assessed 100 percent of their computer systems for Y2K readiness.

Managed care organizations may conduct such assessments in house or employ the services of an independent, external contractor. Fifty-five percent of MCOs have engaged the services of an external contractor to assist them in their efforts to solve Y2K-related computer problems.

An organization's awareness of Year 2000 issues is a contributing factor to the successful implementation of a Y2K compliant program. Ninety-seven percent of our MCO respondents believe that their staff are aware of potential Y2K problems. About half of the MCOs have trained staff, organization wide, to handle any problems associated with millennium issues.

#### Over half of MCOs have tested more than two-thirds of their computer systems

To date, over 50 percent of MCO respondents have tested two-thirds or more of their computer systems to ensure that dates and time are accurately processed in the Year 2000. See Table 1 for MCO survey responses on their computer systems' Y2K readiness.

MCO INTERNAL COMPUTER SYSTEMS TESTING						
Survey Question	Response	Percent of Systems Tested				
		0% 1-33% 34-66% 67-99% 100% Unsure				
Q 30. How many of your computer systems, including hardware and software, have you tested to ensure that they accurately process date and time data (e.g. calculating, comparing and sequencing) for the years 1999 & 2000, and the leap year calculations?	N = 310	2% 14% 20% 49% 13% 2%				
Q 31. How many of your computer systems, including hardware and software, have you tested to ensure that they accurately process date and time data (e.g. calculating, comparing and sequencing) from, into and between the nineteenth, twentieth and twenty- first centuries?	N = 310	11% 17% 17% 47% 5% 3%				
Q 32. How many of your computer systems, including hardware and software, have you tested for possible "date discontinuity" failures?	N = 308	5% 12% 16% 53% 6% 8%				
Q 33. How many of your computer systems, including hardware and software, have you tested to ensure that end of file codes are not misinterpreted as dates (e.g. 9999 as September 9, 1999 and 999,999,999 as September 8, 2001)?	N = 308	5% 12% 17% 44% 14% 8%				
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#### Table 1

The GAO advises that system renovation efforts should be validated and tested to: (1) uncover errors introduced during renovation, (2) validate Y2K compliance, and (3) verify operational readiness. Testing should account for application, database interdependencies and interfaces. Without going through this verification process, assurances of Y2K compliancy are a coin toss.

#### Contingency plans are lagging

Contingency planning is an important aspect of a Year 2000 conversion program and one that HCFA and the GAO advise for mission-critical systems. The GAO further advises that such plans should begin development in the assessment stage of a Y2K program, prior to the renovation and testing of computer systems. On average, 64 percent of MCOs have thus far developed contingency plans related to potential Y2K problems. See Table 2 for MCO survey responses on their Y2K contingency planning.

#### Table 2

MCO INTERNAL SYSTEMS CONTINGENCY PLANS							
Survey Question	Number of		Res	sponse	onse		
	Respondents	Yes	No	N/A	Unsure		
Have you developed a contingency strategy for dealing with potential Y2K-related problems associated with your:							
premium billing systems?	N = 298	71%	15%	5%	9%		
biomedical equipment or devices?	N = 303	41%	9%	41%	10%		
medical information systems?	N = 302	68%	13%	9%	10%		
membership enrollment & disenrollment systems?	N = 303	73%	14%	4%	10%		
member appeal & grievance systems?	N = 297	67%	16%	5%	12%		
telephone systems?	N = 284	67%	19%	3%	11%		
Source: OEI Survey 1999 May not add to 100 percent due to rounding							

Forty-one percent of our respondents believed the development of contingency plans for biomedical equipment did not apply to them. Another 41 percent believed the opposite and had developed contingency plans for Y2K problems that might occur involving biomedical equipment used by their medical providers or subcontractors.

Testing contingency plans is vital to achieving a smooth transition into the new millennium. As of January/February 1999, only 8 percent of MCOs had tested their contingency plans to verify they worked.

# Most MCOs are unaware of their business partners' Y2K readiness

## Y2K discussions with medical providers and subcontractors appear to be limited to MCO information sharing

In general, MCOs' knowledge of the Y2K readiness of their medical providers and subcontractors is largely unknown. We found that 81 percent of MCOs have discussed possible millennium risks with their medical providers and 89 percent have discussed these issues with their subcontractors.

However, it appears that these discussions may have been largely information sharing by the managed care organizations, since 68 percent of MCOs report they are unsure of the current Y2K readiness of their medical providers' computer systems. Fifty-nine percent of MCOs report that they are unsure if their subcontractors' computer systems are Y2K compliant.

In addition, 68 percent of MCOs are unsure if their medical providers have tested their biomedical equipment. Seventy-five percent of MCOs are unsure whether their subcontractors have tested their biomedical equipment.

## Over half of MCOs have developed contingency plans to deal with potential Y2K failures associated with their medical providers and subcontractors

Sixty-one percent of MCOs have developed contingency plans for dealing with Y2Krelated problems associated with their medical providers, while 65 percent developed contingency plans for subcontractor Y2K-related problems. Managed care organizations have received limited assurances from their medical providers and subcontractors that they will be Y2K compliant by December 31, 1999. Only 24 percent of MCOs had received such assurances from two-thirds or more of their medical providers that their systems would be Y2K ready. Twenty-one percent of MCOs had received such assurances from two-thirds or more of their subcontractors.

#### Less than one-quarter of MCOs have tested data exchanges with two-thirds or more of their medical providers and subcontractors

Twenty-two percent of MCOs have tested data exchanges with two-thirds or more of their medical providers. A similar percentage reports having tested data exchanges with two-thirds or more of their subcontractors.

About three-fourths (73%) of MCOs will require their subcontractors to demonstrate that their systems are Y2K compliant. On the other hand, only 30 percent of MCOs will require their medical providers to do so.

# Differences in Y2K readiness, assessment and testing exist based on tax status and size of MCOs

#### More for-profit and large MCOs claim to be Y2K ready

Overall, 22 percent of MCOs claimed that they were currently Y2K ready. When we examined MCO responses based on their tax status, we found that 26 percent of for-profit MCOs claim that they are currently Y2K ready, while 16 percent of not-for-profits claim that they are Y2K ready.

In addition, more large size plans (47%) are currently Y2K ready compared to small (20%) and medium (15%) size plans. We considered large plans to be those with more than 50,000 Medicare enrollees, medium size plans to have Medicare enrollments between 2,000 and 50,000, and small plans to have less than 2,000 Medicare enrollees.

## More large and for-profit MCOs have assessed 100 percent of their computer systems

Seventy-one percent of large MCOs have assessed 100 percent of their computer systems for Y2K readiness compared to 50 percent of medium MCOs and 64 percent of small MCOs. In addition, 68 percent of for-profit MCOs have assessed all of their computer systems compared to 39 percent of not-for-profit MCOs.

## Fewer medium size MCOs have developed contingency plans for Y2K-related problems related to medical providers

Overall, 61 percent of MCOs have developed contingency plans for dealing with Y2Krelated problems associated with their medical providers. When we analyzed the MCOs' response by the size of the MCOs, we found that 56 percent of medium size plans developed contingency plans for problems associated their medical providers compared to 71 percent and 72 percent for large and small MCOs respectively.

A similar situation exists as it relates to contingency plans developed for subcontractor Y2K-related problem. Overall, 65 percent developed contingency plans for subcontractor Y2K-related problems compared to 59 percent of medium size plans.

#### **Agency Comments**

We received comments from the Health Care Financing Administration. Their comments are included in Appendix D. The HCFA is conducting an outreach effort to address the preparedness of MCOs and is monitoring the MCOs' business continuity and contingency planning efforts. As part of this monitoring, HCFA is directing MCOs to submit their contingency plans to HCFA by July 15, 1999. The HCFA has also awarded a contract to an Independent Verification and Validation firm to provide assistance in conducting onsite visits to numerous MCOs to assess their Y2K readiness.

## Non-Response Analysis

A consideration in survey analysis is that the results may be biased if non-respondents are significantly different from respondents. To determine whether a difference exists in this survey, we compared the two groups, respondents and non-respondents by the tax status of their contracts. Since tax status is a categorical variable (either for-profit or not-for-profit), we tested for statistical significance using a chi-square with the appropriate degrees of freedom.

#### Analysis by tax status

We found that not-for-profit MCOs had a lower response rate (68%) compared to forprofit MCOs (82%). The computed chi-square test statistic (11.757) is statistically significant at the 99 percent confidence level. This indicates a potential for bias in the results. See Table 3 for response rate and test statistics.

Comparison of Respondents By Tax Status								
	Respondents		oondents Non-respondents		То	Total		
	Number	Percent	Number	Percent	Number	Percent		
For- Profit	188	61%	40	41%	228	56%	82%	
Not-For- Profit	120	39%	57	59%	177	44%	68%	
Total	308	100%	97	100%	405	100%	76%	

#### Table 3

Chi-square = 11.757 DF = 1

To determine the effect of the relationship between response rate and tax status, we undertook an analysis of the non-respondents. Assuming that non-respondents would have answered the same as respondents answered, we calculated a hypothetical global response to Questions 15, 25a, 28 and 35. These questions ask about overall assessment, current Y2K readiness, computer systems' assessment and anticipated Y2K readiness. We found that the responses were within the confidence intervals for the original estimates. Therefore, no statistical evidence of bias based on tax status was shown.

### Non-Response Analysis

#### MCO letter responses to Y2K survey

In addition to our non-response analysis, we received letters detailing Y2K efforts from 5 managed care organizations, representing 41 plans. The following is a summary of their reported Year 2000 readiness.

**MCO A:** This MCO began its Y2K assessment in 1998. It "anticipates" that its internal systems will be Year 2000 compliant or contingency plans will be in place before December 1999. The MCO has sent a Y2K readiness questionnaire to its vendors and plans to track vendor responses.

**MCO B:** This MCO began its Y2K assessment in 1995. As of February 1999, the MCO reports that its internal inventory and assessment, including its biomedical equipment, is "largely complete." Remediation efforts are currently underway and hardware and operating system software is currently being tested. The MCO is also investigating the Y2K readiness of its business partners and is seeking assurances of those partners' Year 2000 readiness.

**MCO C:** This MCO plans to have all major information services and facility equipment and services Year 2000 compliant by August 1999. The initial inventory of its information services and infrastructure is complete. Project test plans are currently, as of January 1999, being developed for its "high risk enterprise-wide and department specific equipment and systems." In addition, the MCO is currently in the process of contacting its business partners (e.g. vendors, suppliers, contractors, external agents) to determine their Y2K readiness.

**MCO D:** This MCO reports that 98 percent of its internal systems remediation efforts were completed by December 31, 1998. The MCO reports that most of its external file formats and underlying system logic has be modified to process 4 digit years and all of its systems meet HCFA's eight digit requirement. As of January 1999, the MCO systems "currently Y2K ready and processing proven" are: (1) automated eligibility systems, (2) medical and dental claims systems, (3) provider referral and pre-authorization systems, and (4) other critical managed care billing and payment systems. The MCO also reports that its reimbursement accounts, pharmacy administration, managed dental care systems, and managed behavioral care systems are also Year 2000 compliant.

The MCO plans to focus on integrated testing and external readiness issues in 1999. It has completed internal unit, system and acceptance testing on all of its systems and is now in the process of conducting end-to-end testing of all systems. Contingency and business resumption plans are currently being developed for key processes. In addition, the MCO has retained the services of biomedical engineering firms to verify Y2K claims made by manufacturers of the biomedical equipment directly owned by the MCO. Presently, the MCO is also conducting assessments of the potential Y2K problem impact from third-

### Non-Response Analysis

party entities critical to its operations. Critical vendor assessments and site visits, including alternative sourcing strategies are now being done. The MCO is also in the process of testing key vendor computer systems' interface.

**MCO E:** This MCO began its Year 2000 compliance efforts in 1996. As of December 1998, the MCO reports that 75 to 80 percent of its systems are currently Y2K ready. The MCO expects to be 100 percent Y2K compliant by December 1999. The MCO also expects to have completed its internal assessment by January 31, 1999 and its remediation efforts by March 31, 1999. Contingency plans for critical business processes are expected to be completed by June 1999 and testing for Year 2000 compliancy has already begun. An inventory and assessment of the Y2K readiness of its vendor and counter party support (e.g. insurance, payroll, outside data processing) is also being conducted by the MCO. Letters of compliancy expectation have been sent to its business partners and the MCO plans to assess suppliers and vendors for their Y2K readiness.

Y2K Ready:	MCO's, contracted medical providers' and subcontractors' computer systems that can compute and process dates after December 31, 1999.					
Medical Provider:	Any individual or entity engaging in the delivery of health care services in a State who is licensed, certified or required by the State to engage in that activity in that State.					
Subcontractor: (Vendor)	A secondary contractor undertaking some or all of the obligations of another contract. These obligations include, but are not limited to, tangible goods, professional services, technical support and functions delegated to other entities. For example, DME vendors, home health agencies, hospitals, audit firms, billing companies, etc.					
Computer Systems:	<ol> <li>Systems that relate to the following functions or areas:</li> <li>Continued access to quality medical care (including things like DME, appointment scheduling, pharmacy, etc.);</li> <li>Financial stability;</li> <li>Continued provider payments (contracted and non-contracted);</li> <li>Enrollment/eligibility administrative functions (e.g. appeals, grievances and encounter data collection);</li> <li>Communications capabilities (e.g. telephone systems);</li> <li>Quality assurance; and,</li> <li>Any other delegated or subcontracted good, services or relationship, that could cause a potential adverse impact to an enrollee.</li> </ol>					
Date Discontinuity:	Date discontinuity can occur when a computer system's internal time clock does not move forward in line with true time. For example, such systems are equipped with a "clock" that calculates time from a fixed point by counting the number of clock ticks. This fixed point is usually an arbitrary date set by the equipment manufacturer. When enough clock ticks accumulate and register as full, the internal clock is reset, like a car odometer, to show zero. This will be interpreted by the computer as the arbitrary date previously set by the manufacturer.					
End of File Codes:	Software programers commonly designate certain numbers to indicate the end of a computer program file. For example, "9999" and "00" are often used. The computer will malfunction if it misinterprets these end of file codes to represent actual dates; in this case, September 9, 1999 and the year 2000.					

Der	mographic/Background Information (Please circle the correct response or fill in the blank)
1.	How would you describe your plan type? (a) HMO, (b) CMP, (c) Other N= 307 83% 12% 5%
2.	How would you describe your contract type? (a) Cost, (b) Risk, (c) HCPP, (d) Demonstration N= 307 11% 78% 2% 8%
3.	How would you describe your organizational model?
N=	(a) Staff, (b) IPA, (c) Group, (d) Mixed, (e) Other (please list): = 306 3% 38% 12% 44% 2%
4.	What is the tax status of your plan?(a) Non-profit,(b) For-profitN= 30839%61%
5.	What types of enrollees do you serve? Circle all that apply
	(a) Commercial, (b) Medicare, (c) Medicaid, (d) Other (please list):
6.	What is the size of your enrollment for each population you serve?
	Medicare, Medicaid, Commercial, Other
7.	What is the total number of members you serve?
8. aro:	Where are the majority of your members located? (a) urban areas, (b) rural areas, (c) suburban areas, (d) Mix of
area	N= 303 20% 2% 3% 76%
9.	Do you contract with Medicare on a national scale? Yes No No No 66%
10.	What geographic HCFA region, or regions, does your plan service?
11.	Does your organization delegate claims or any other functions to providers or third-party administrators? N= 310 61% 39%
	Have you engaged the services of an outside/external contractor to assist in your efforts to solve Y2K-related nputer problems?Yes No N= 310 55% 45%
13.	If you answered "Yes" to either Q11 or Q12, have you obtained assistance from that entity in completing this survey?
	N= 252 10% No
14.	Concerning this survey, for how many H#s are you responding?

Awareness/Contingency Planning	Yes	No N/A	Unsure
15. Have you identified the Y2K risks facing your business operations and assessed the poter	itial imp	bact	
and probability of occurrence of each of these risks?	1	2 3	9
N= 303	93%	2% 0%	4%
16. Are your staff, organization wide, aware of potential Y2K problems?	1	2 3	9
N= 305	97%	1% 1%	2%
17. Have your staff, organization wide, been trained to handle potential Y2K problems?	1	2 3	9
N= 302	51%	41% 2%	<b>6%</b>
18. Have you discussed Y2K issues with your medical providers?	1	2 3	9
N= 309	81%	14% 1%	
19. Have you discussed Y2K issues with your subcontractors?	1	2 3	9
N= 309 20. Are you facing the following constraints or obstacles in identifying or fixing potential Y2K p	<b>89%</b>	<b>5% 4%</b>	2%
a: lack of financial resources?		2 3	9
a. lack of financial resources : N= 308	_	96% 0%	0%
b: lack of skilled personnel?	1	2 3	9
N= 309	7%		0%
c: lack of subcontractor cooperation?	1	2 3	9
N= 308	3%	85% 3%	9%
d: lack of medical provider cooperation?	1	2 3	9
N= 309	3%	77% 3%	17%
21. Are your medical providers and subcontractors (e.g. hospitals, physicians, chemistry and imaging service providers) hesitant to share their Y2K test information due to:			
a. fear of legal liability and litigation from patients, vendors and others?	1	2 3	9
N= 280	19%	<b>34% 4%</b>	43%
b. concerns over patient loss of confidence?	1	2 3	9
N= 279	3%		58%
c. concerns over investor loss of confidence?	1	2 3	9
N= 279	3%		58%
d. fear of interference and oversight from regulatory agencies?	1	2 3	9
N= 278	4%	35% 4%	57%

		Yes	No	N/A	Unsure
22. Have you developed a contingency strategy for dealing with pote	ential Y2K-related proble	ms			
associated with your:			~	~	~
a: premium billing systems?		1	2	3	9
	N= 298	70%	15%	5%	9%
b: biomedical equipment or devices?		1	2	3	9
	N= 303	41%	9%	41%	10%
c: medical information systems (e.g. patient files, utilization)	?	1	2	3	9
	N= 302	68%	13%	9%	10%
d: membership enrollment/disenrollment systems?		1	2	3	9
	N= 303	73%	14%	4%	10%
e: member appeal/grievance systems?		1	2	3	9
	N= 297	67%	16%	5%	12%
f: medical providers?		1	2	3	9
	N= 298	61%	19%	5%	15%
g: subcontractors?		1	2	3	9
	N= 299	65%	14%	9%	12%
h: telephone systems?		1	2	3	9
	N= 300	67%	19%	3%	11%
23a.Have you tested your contingency plans?		1	2	3	9
	N= 300	8%	77%	2%	12%
23b. If you have not tested your contingency plans, when will the	ey be tested?				
24. Have you contracted with an outside organization for an "indepe	endent verification and va	alidation"			
assessment of your organization's Y2K readiness?		1	2	3	9
	N= 309	45%	48%	0%	6%
25a.Are your computer systems, including hardware and software, cu	urrently Y2K ready?	1	2	3	9
	N= 310	22%	76%	0%	2%
25b. If your computer systems, including hardware and software when will they be ready?	, are not currently Y2K re	eady,			
26. Are you going to require that your medical providers demonstrate	e that their systems				
are Y2K ready?		(1)	2	3	9
	N= 306	30%	46%	11%	13%
27. Are you going to require that your subcontractors demonstrate the	nat their systems				
are Y2K ready?		(1)	2	3	9
	N= 309	73%	13%	4%	11%

Computer Systems		0	% 1-33%	6 34-66	% 67-99%	<b>6 100%</b>	Unsure
28. How many of your computer systems, including hardware	and software, ha	ve yo	u				
assessed for Y2K readiness?		1	2	3	4	5	9
	N= 310	0%	0%	3%	39%	56%	1%
29. How many of your computer systems, including hardware	and software, have	ve yo	u				
renovated or replaced?		1	2	3	4	5	9
	N= 305	1%	17%	28%	50%	2%	3%
30. How many of your computer systems, including hardware	and software, have	ve yo	u				
tested to ensure that they accurately process date and tin	ne data (e.g. calcu	lating	],				
comparing and sequencing) for the years 1999 & 2000, a	nd	~	~	~	~	~	~
the leap year calculations?		1	2	3	4	5	9
	N= 310	2%		20%	49%	13%	2%
31. How many of your computer systems, including hardware		•					
tested to ensure that they accurately process date and tin		-					
comparing and sequencing) from, into and between the n	ineteenth, twentie	~		0	~	~	~
twenty-first centuries?		(1)	2	3	4	5	9
	N= 310		16%	17%	47%	5%	3%
32. How many of your computer systems, including hardware	and software, hav	$\sim$					
tested for possible "date discontinuity" failures?		(1)	2	3	4	5	9
	N= 308	5%	12%	16%	53%	6%	8%
33. How many of your computer systems, including hardware		•					
tested to ensure that end of file codes are not misinterpre		~					
September 9, 1999 and 999,999,999 as September 8, 20		(1)	2	3	4	5	9
<b>.</b>	N= 308	5%	12%	17%	44%	14%	8%
34. If you have not tested your computer systems for the com	ditions described i	n Q2	8-Q33,				
when will they be tested?							
35. How many of your computer systems, including hardware	and software, will	~		9	4		$\bigcirc$
ready by December 31, 1999?	N. 676	( <b>1</b> )	2	3	-	5	9
	N= 310	0%	0%	0%	28%	71%	1%
36. How many of your computer systems, including hardware		i de y	2K 2	3	4	5	9
ready for the turn of the Century leap year (February 29, 2		-	-	-	-	-	-
27 How many of your medical providers have given you ago	N=310	<b>0%</b>		0%	27%	71%	1%
37. How many of your medical providers have given you assu will be Y2K ready?			2	3	4	5	9
will be f2K ready?	N- 206	$\cup$			-	-	-
38. How many of your subcontractors have given you assura	N= 306	<b>9%</b>	16%	17%	14%	10%	34%
will be Y2K ready?	ices mar men sys		2	3	4	5	9
win be 121(16duy:	N= 305	-	 13%	<b>40%</b>	· 12%	9%	22%
	N= 303	J /0	13/0	4U /0	I∠ /0	J /0	∠∠ /0

### Medicare Managed Care Organization Year 2000 Survey

	nputer Systems		0%	% 1-33%	34-66%	6 <b>7-99</b> %	100%	Unsure
	How many of your medical providers have tested their medical		1)	2	3	4	5	9
	(e.g. chemistry, imaging) for Y2K readiness?		-	-	-	-	-	-
40	How many of your subcontractors have tested their medical de	= 305	1%	8%	3%	12%	8%	68%
	(e.g. chemistry, imaging) for Y2K readiness?		1)	2	3	4	5	9
		= 298	 2%	 6%	<u></u> 4%	 12%	1%	<b>75%</b>
41a.	How many of your medical providers have tested data exchang			070	470	12/0	170	1070
	systems and your systems?	-	1	2	3	4	5	9
		= 274	13%	26%	15%	<b>19%</b>	3%	24%
	41b. If you have not tested data exchange between your system medical providers' systems, when will you test?							
	How many of your subcontractors have tested data exchange b and your systems?	petween their s			3	4	5	9
	N=	= 298	11%	23%	24%	19%	3%	20%
	42b. If your have not tested data exchange between your syste subcontractors' systems, when will you test?	ems and your						
	How many of your medical providers' systems, including hardw		$\sim$	~	~	~	0	~
	are currently Y2K ready?		1)	2	3	4	5	9
			3%	10%	6%	4%	9%	68%
	43b. If your medical providers' systems, including hardware and currently Y2K ready, when will they be ready?				_			
	How many of your subcontractors' systems, including hardware		_					
	currently Y2K ready?		1)	2	3	4	5	9
		= 265	2%	12%	11%	15%	3%	57%
	44b. If your subcontractors' systems, including hardware and so Y2K ready, when will they be ready?				_			
Plea	ase answer the following question:							
45.	Could your plan continue to provide services to patients if Medi	icare payment	s we	re dela	yed?			
	Yes (If yes, for how long?):	l	No _					
N=3	10 74% Mode=1 to 2 months		1	9%	79	∕₀ ansv	vered	other

19%

7% answered other or did not answer

DEPARTMENT OF HEALTH & HUMAN SERVICES

Health Care Financing Administration

The Administrator Washington, D.C. 20201

DATE: MAY 1 0 1999

TO: June Gibbs Brown Inspector General

Nancy-Ann Min DeParle Narry - A DeParle FROM:

SUBJECT: Office of Inspector General (OIG) Report: "Y2K Readiness of Managed Care Organizations," (OEI-05-98-00590)

We appreciate the opportunity to review and comment on your report concerning the year 2000 (Y2K) readiness of managed care organizations, which was conducted at our urging. As you know, it is our highest priority to ensure that the health care programs that serve Medicare and Medicaid beneficiaries are Y2K ready, and that is why we requested that you undertake this analysis. We appreciate OIG's efforts in surveying managed care organizations' Y2K readiness, and OIG's timely sharing of its survey findings with us.

We commend you for the high response rate to your survey and appreciate the willingness of the managed care organization community to share information. We have found this survey, and its fee-for-service predecessor, to be extremely helpful as we work to assess the readiness of our provider partners, and focus our outreach efforts on areas of greatest concern. The results of this survey are troubling. We are continuing our efforts to reach out to the more than 380 managed care organizations that provide care to about 6.7 million Medicare beneficiaries.

#### **HCFA's Own Compliance Efforts**

Our efforts have encompassed working to address the Y2K readiness of our managed care enrollment and payment systems as well as the readiness of managed care organizations themselves. Ensuring that our own internal mission-critical systems for paying managed care plans are compliant was our foremost priority. HCFA has been aggressively addressing Y2K issues in the systems over which we have responsibility. As you have acknowledged, we have made great strides in renovating, testing, and implementing our systems. Our mission-critical internal systems were compliant by December 31, 1998, and all of our internal systems were compliant, tested, and implemented by March 31, 1999. Among other things, those systems manage the eligibility, enrollment, and premium status of Medicare beneficiaries, and make payments to managed care plans.

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There is still much work to be done at HCFA before the turn of the millennium. As you know, we will embark on a rigorous re-testing and re-certification process of our internal and external systems. We are taking the prudent course by developing and validating contingency plans to address unforeseen system failures.

#### **HCFA's Outreach Efforts**

We are encouraged that most managed care organization respondents report their systems will be ready by December 31, 1999, but are concerned that only 22 percent of managed care organization respondents report that they were ready by January or February 1999, when your survey was conducted. We are pleased that the majority of managed care organization respondents have discussed Y2K risks with their providers and subcontractors, but are concerned that most managed care organizations are unaware of their business partners' Y2K readiness. These results confirm our own discussions with Medicare managed care organizations why it remains important for us to continue our aggressive and widespread outreach efforts to managed care organizations and other health care providers.

As part of our unprecedented outreach effort, we have specifically addressed the preparedness of managed care organizations.

- We established a Y2K managed care workgroup that is focusing its efforts in three critical areas: readiness education and information; certification; and contingency planning.
- Similar to our efforts to reach the provider community at large, we have sent letters to managed care organizations providing guidance on Y2K readiness; posted updated information on our Y2K website; and conducted several national conferences geared specifically towards managed care.
- As the lead agency of the health care sector of the President's Council on Year 2000 Conversion, we meet regularly with managed care industry groups and trade associations to discuss and resolve Y2K issues. We know that our partners, including the American Association of Health Plans (AAHP) and the Health Insurance Association of America (HIAA), have been actively involved in outreach to their members. For example, AAHP has provided information relating to HCFA's Y2K compliance requirements and outreach efforts to its member Medicare participating health plans, and distributed a newsletter ("Information Strategies for Health Plans") describing HCFA's Y2K compliance efforts.

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As I mentioned, these efforts are part of our larger effort to reach out to and assist the provider community, including our Y2K toll-free phone line, seminars and learning sessions, and provider awareness speaking engagements. The attached list describes our major Y2K outreach activities geared toward managed care organizations.

#### Y2K Certification and Contingency Planning Activities

Our Medicare contracts with managed care organizations for 1999 required that the managed care plans that do business with Medicare certify their Y2K readiness. This Y2K certification statement was modeled after the certification statement used for our fee-for-service claims processing contractors and it reflects adjustments to our legal relationship with managed care organizations. Managed care organizations are required to identify mission-critical systems and processes that are not Y2K ready, and attest to their (managed care organizations) efforts to include testing requirements for mission-critical delegated responsibilities. We required all managed care organizations to certify as to their Y2K compliance by April 15, 1999. We will use these certifications as part of our ongoing efforts to assess Y2K readiness of managed care organizations.

We are also aggressively monitoring managed care organizations' business continuity and contingency planning efforts. We provided guidance on contingency planning as well as a template that HCFA developed for our own contingency planning. We have required all managed care organizations to submit business continuity and contingency planning to us by July 15, 1999. We are also requiring managed care organizations to provide monthly status reports on their contingency planning progress. Reporting for each managed care organization began in March, 1999, and will continue until each and every managed care organization completes all phases of its business continuity and contingency planning.

#### On-Site Reviews and Independent Verification and Validation (IV&V) Efforts

Earlier this year, we hired an independent verification and validation (IV&V) firm, SRA International, Inc., to help us assess managed care organizations' Y2K readiness. The IV&V contractor is helping develop criteria for assessing risk, identify managed care organizations requiring on-site reviews, and will participate in the on-site reviews and follow-up evaluations along with HCFA staff.

In collaboration with IV&V, we are establishing the criteria to identify managed care organizations that will receive on-site reviews. At a minimum, we are planning on-site reviews at the national managed care organization and those organizations that have more than 50,000 enrolled Medicare beneficiaries. Further, since we share OIG's concern over the readiness of small managed care plans, we are including a number of small plans as part of our review efforts. We are now finalizing the number of on-site reviews we will conduct between May and August, 1999.

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By September 1999, we should have an accurate assessment of managed care organization Y2K readiness.

We will work with those managed care organizations that have been identified as having Y2K readiness weaknesses and will closely monitor them.

Like you, we remain concerned that some health care providers, whether capitated or fee-for-service, will not meet the Y2K challenge on time. Providers have the primary responsibility to ready their own systems for the Y2K in a timely manner to meet the millennium challenge successfully. As you know, HCFA does not have the authority, ability, or resources to step in and repair or test systems for others. We are providing assistance to the extent we are able, and we appreciate the contributions you have made to our efforts through your readiness surveys and in your ongoing consultations with us. We welcome any suggestions and guidance from you as we continue our Y2K compliance efforts.

Thank you again for conducting this survey at our request, and for providing us with the opportunity to respond to this report. We look forward to working with you and our other partners as we continue moving forward to ensure that our health care programs are Y2K compliant.

Attachment

#### **HCFA Outreach Efforts**

September 1996	HCFA first discussed the Y2K issue with managed care organizations in an annual Managed Care Enrollment and Payment Seminar held at HCFA Central office.
April 1998	HCFA issued a letter to managed care organizations defining the requirements that would ensure that HCFA and managed care organizations would be able to exchange managed care transactions and monthly payment and enrollment reports. The managed care transaction record was modified to reflect eight position date fields and managed care organizations began using that record format in the fall of 1998. To date, 100 percent of all managed care organization transactions are received in the Y2K compliant format.
September 1998	HCFA began an intensive effort to raise the awareness level of managed care organization with respect to Y2K readiness. Managed care organizations were sent a letter that defined the phases of Y2K readiness.
October 1998	HCFA issued a letter to the managed care organizations informing them of the need to become Y2K compliant and to engage in contingency planning activities. At that time, managed care organizations were not directed to submit contingency planning documents to HCFA, however, they were informed that they should have contingency plans available for HCFA review.
January 1999	HCFA issued a letter to the managed care organizations requiring them to submit certification statements and informing them of their responsibility to ensure that their sub-contractors and providers are also Y2K compliant. The Y2K certification statements will be used in conjunction with managed care organization contract language to ensure that managed care organizations will be Y2K complaint.
January 1999	HCFA issued a letter to the managed care organizations providing information on Provider Outreach and outlining.
March 8-9, 1999	HCFA conducted a Managed Care Millennium Conference in Philadelphia, Pennsylvania.
<b>March 22-23,</b> 199	9 HCFA conducted a Managed Care Millennium Conference in Denver, Colorado.

March 25, 1999	HCFA issued a letter to managed care organizations requiring them to submit a monthly Business Continuity and Contingency Planning status report. The Business Continuity and Contingency Planning status report will be used as a gauge in determining which managed care organization may need additional attention with Y2K activity. The letter also directed managed care organizations to submit their contingency plans to HCFA by July 15, 1999.
April 5, 1999	HCFA awarded a contract to an Independent Verification and Validation (IV&V) firm to provide technical assistance to HCFA in conducting on-site Y2K assessments of managed care organizations.
April 12-13, 1999	HCFA held a Managed Care Millennium Conference in Kansas City.
May-August 1999	With the assistance of the IV&V contractor HCFA will conduct on- site visits to numerous managed care organizations, to assess their Y2K readiness.