DEPARTMENT OF HEALTH AND HUMAN SERVICES

OFFICE OF INSPECTOR GENERAL

HIPAA Readiness: Administrative Simplification for Medicare Part B Providers

Inspector General

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OFFICE OF INSPECTOR GENERAL

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EXECUTIVE SUMMARY

OBJECTIVE

To determine if Medicare Part B providers expect to comply with the electronic data transaction standards and code sets mandated by the Health Insurance Portability and Accountability Act (HIPAA) by October 2003.

BACKGROUND

The purpose of Title II of HIPAA is to improve the efficiency of the health care system by establishing standards to facilitate the electronic transmission of data between providers and payers. Electronic data interchange can eliminate the inefficiencies associated with handling paper documents. It reduces administrative costs and improves overall data quality for transactions, such as health care payments and coordination of benefits.[1]

In accordance with the provisions of Title II of HIPAA, the Secretary of Health and Human Services has promulgated regulations mandating the use of specific standards for eight different types of electronic transactions and medical code sets. Covered entities that filed an extension must implement the standards by October 16, 2003.

This report is based on the results of a mail survey of a stratified random sample of Medicare Part B providers, which includes, among others, physicians, durable medical equipment suppliers, and independently-practicing therapists that submitted claims to Medicare carriers between July 1, 2001, and June 30, 2002.

[1] 65 FR 50312 (August 17, 2000)

FINDINGS

Ninety-four percent of Medicare Part B providers expect to be in compliance with HIPAA standards by October 2003

According to respondents, Medicare Part B providers are making significant progress in meeting the HIPAA deadline. Ninety-four percent of Medicare Part B providers indicated a moderate to high level of satisfaction that they will meet the October deadline. Approximately half of the providers are developing contingency plans in the event their system is not in compliance by October 2003.

External barriers may affect compliance

Approximately 47 percent of the respondents who listed potential barriers to compliance expressed concerns that vendors and trading partners could affect their ability to meet the compliance deadline.

CONCLUSION

According to respondents, Medicare Part B providers are making progress toward meeting the compliance target of October 16, 2003, for implementing the HIPAA electronic transaction standards and code sets. Ninety percent or more of the providers have developed implementation schedules and internal and external testing strategies, and are working with system vendors to implement the electronic standards. Furthermore, more than 85 percent are relying on their professional associations to assist them in developing implementation strategies. When asked about barriers to achieving compliance, respondents expressed concern that vendors and trading partners may affect their ability to meet the compliance date.

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OBJECTIVE

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BACKGROUND

Congress instituted significant reforms to the health care industry with the passage of HIPAA. Title I of HIPAA ensures the availability and portability of health care insurance coverage, while Title II creates a regulatory framework to improve the efficiency of the health care system by establishing standards that will facilitate the electronic transmission of data between providers and payers. (See Appendix A for a glossary of HIPAA-related terms and acronyms.) The goal is to create a seamless transfer of data with limited manual intervention.

Administrative Simplification

Under Title II, Subtitle F (Administrative Simplification), the Secretary of Health and Human Services has the authority to: (1) mandate the use of standards for the electronic exchange of health care data, (2) specify what medical and administrative code sets should be used, (3) require the use of national identification systems, and (4) specify the types of measures required to protect the security and privacy of personally-identified health care information.

Electronic Transactions and Code Sets

Electronic data interchange (EDI) is the electronic transfer of information in a standard format between trading partners. Compared to paper transactions, EDI substantially reduces handling and processing time by reducing the administrative burden, lowering operating costs, and improving overall data quality.[2]

Transactions are the exchange of information between two parties to carry out financial or administrative activities related to health care. The standards for electronic transmission of each of the transactions are codified in the Code of Federal Regulations

[2] 65 FR 50312 (August 17, 2000)

(45 CFR Parts 160 and 162). The rule provides standards for eight types of electronic transactions:

1. Health care claims or equivalent encounter information
2. Health care payment and remittance advice
3. Coordination of benefits
4. Health care claim status
5. Enrollment and disenrollment in a health plan
6. Eligibility for a health plan
7. Health plan premium payments
8. Referral certification and authorization

The rule also contains requirements concerning the use of standardized code sets, such as medical diagnostic codes and medical procedure codes to encode data elements in the transactions. The following code sets have been adopted.[3]

- International Classification of Diseases, 9th Edition, Clinical Modification (ICD-9-CM), Volumes 1 and 2
- International Classification of Diseases, 9th Edition, Clinical Modification, Volume 3 Procedures
- National Drug Codes (NDC) for retail pharmacy transactions
- Code on Dental Procedures and Nomenclature
- Combination of Health Care Financing Administration Common Procedure Coding System (HCPCS) and Current Procedural Terminology, Fourth Edition (CPT- 4) for physician services and other health care services
- Health Care Financing Administration Common Procedure Coding System (HCPCS) for all other substances, equipment, supplies, or other items used in health care services

Covered entities, defined as clearinghouses, health plans, and providers that use the electronic exchange of health information as part of their business, will be required to adopt these standards. The compliance date for this rule (45 CFR Parts 160 and 162) was originally October 16, 2002. The Administrative Simplification Compliance Act, signed into law on December 27, 2001, extends the compliance date by 1 year to October 16, 2003. The extension applies only to those covered entities that filed an extension with the Centers for Medicare & Medicaid Services (CMS) by October 16, 2002. For these entities, October 16, 2003, is the compliance date. Since the implementation date is several months away, CMS has not yet developed standards to measure compliance.

[3] 45 CFR § 160.1002

METHODOLOGY

This is one in a series of HIPAA readiness surveys. We used a mail survey as the primary tool to conduct this evaluation. We mailed surveys during the week of December 2, 2002. We conducted two follow-up mail requests during the weeks of January 13, 2003, and January 27, 2003. We tracked those providers for which we could not find a current address or phone number through state licensing boards, the Unique Physician Identification Number registry, Medicare carriers, hospitals, and billing services. We continued to mail surveys and obtain survey responses through fax and telephone interviews until April 4, 2003.

We selected a stratified random sample of 150 Medicare Part B providers who submitted claims to Medicare carriers between July 1, 2001, and June 30, 2002. Stratification allowed us to test for differences in compliance strategies, contingencies, and barriers among providers, based on the number of claims they submitted to Medicare. We divided the providers into three strata:

Stratum	Number of Claims	Size of Population	Sample Size	Number of responses	Percent of responses
1	1 to 500 claims	1,607,207	50	40	80.0%
2	501 to 5,000 claims	324,847	50	45	90.0%
3	5,001 claims or more	13,325	50	43	86.0%
TOTAL		**1,945,379**	**150**	**128**	**85.3%**

We randomly ordered the population of providers within each stratum. We then selected the first 50 providers in each stratum that were covered by HIPAA, were still in business, and were not under investigation by the Office of Inspector General's Office of Investigations.

Our unweighted response rate was 85.3 percent. We had an 81.9 percent weighted response. Of the 128 respondents, 107 were physicians, 12 were durable medical equipment suppliers, and the rest were independently-practicing therapists, chiropractors, clinical social workers, nurse anesthetists, clinical laboratory, or portable x-ray suppliers. Practice administrators, business owners, billing services managers, financial officers, compliance officers, and clinic managers, who identified themselves as the person

responsible for coordinating the HIPAA Simplification Regulations, completed the surveys.

For weighted estimates of key survey questions along with their corresponding confidence intervals, see Appendix B. We also tested for differences among the three strata for six of the questions (see Appendix B). We performed a nonrespondent analysis by strata and type of provider. In addition, we tested for differences between early and late responders. Our nonrespondent analysis did not detect a bias with respect to those factors (see Appendix C). The estimates given in this report are based on the portion of the sample who responded to our survey.

We surveyed the providers about their level of readiness in four broad areas:

1. Assessment and awareness activities
2. Barriers that have impeded or are current obstacles to achieving compliance
3. Compliance strategies, such as sequencing and testing plans
4. Contingency planning

We did not independently verify the accuracy of the responses.

The inspection was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

FINDINGS

We conducted a mail survey of a stratified random sample of Medicare Part B providers. Our response rate was 85.3 percent. Overall, according to respondents, Medicare Part B providers are making progress toward meeting the compliance deadline of October 16, 2003, for implementing the HIPAA electronic transaction standards and code sets. Ninety-four percent expect to be in compliance by the deadline.

Ninety-four percent of Medicare Part B providers expect to be in compliance with HIPAA standards by October 2003

Almost all Medicare Part B providers submitted a compliance extension form. As a result, they have until October 16, 2003, to implement the electronic transaction standards and code sets. Ninety-four percent[4] (representing 96 percent of the Part B claims) of Medicare Part B providers indicated a moderate to high level of satisfaction that they expected to meet the HIPAA compliance deadline. At the time of our survey, 88 percent of the providers expressed a moderate to high level of satisfaction that they were ready to implement the HIPAA electronic standards.

Providers have developed internal and external testing strategies

Approximately 90 percent of the Part B providers said that they either have or intend to develop a testing strategy that includes internal and external data interfaces. Overall, 46 percent have begun some level of testing. Slightly more than half of the providers said that they had received notices from carriers regarding coordination of transaction testing.

Providers are developing implementation strategies to achieve compliance

Part B providers indicated that they are developing plans to meet the compliance date. Ninety-six percent of the providers plan to, are in the process of, or have completed an implementation schedule. Approximately 95 percent of the providers said they plan to or are currently working with systems vendors to implement the standards. More than 80 percent of the providers are using a clearinghouse. Of those, more than 90 percent will continue to do so. Since the majority of providers indicated they were using clearinghouses and working with vendors to integrate compliant systems, most of the implementation strategies include a combination of the following:

[4]This 94 percent is based on survey respondents. As a weighted percent of the entire sample of 150 providers, 18.1 percent did not respond to the survey, 77.2 percent indicated that they had moderate to high expectations that they would be compliant, and the remaining 4.7 percent indicated that they had low expectations that they would be compliant. See Appendix C for our nonrespondent analysis.

1. Using internal staff to plan, develop, and implement the standards
2. Hiring a technical systems consultant or vendor to take full responsibility for planning, developing, and implementing the new standards
3. Purchasing components of a new system or additions to the current system from a vendor to meet the standards

According to respondents, providers are using expert resources outside their organization to help implement the HIPAA standards and code sets. More than 85 percent stated that they have used or plan to use their professional associations for information to assist them in developing implementation strategies.

Sixty-eight percent of the respondents indicated that they plan to purchase or already have purchased new system components as part of their implementation strategy. However, only 27 percent said that they or their contract vendors had conducted any cost-benefit analysis.

Although 94 percent of the providers expressed a moderate or higher level of satisfaction that they will be compliant, more than 50 percent indicated that they were developing contingency plans in the event their system is not compliant by October 2003.

Implementation strategies vary according to provider's claims volume

As part of our analysis, we reviewed the responses from six questions regarding implementation strategies among the survey strata. We found a significant variation in responses to the question, "Does your organization have a sequencing (prioritization) strategy for implementing the HIPAA electronic transactions?" We found that providers that file between 1 and 5,000 claims (strata 1 and 2) are less likely to use a sequencing strategy. This may be attributed to the systems these providers are using currently to transact their claims. For example, billing services may be purchasing "ready to use" software with all of the new transactions implemented simultaneously. The point estimates and the chi-square test information regarding the relationships are included in Appendix B.

External barriers may affect compliance

When asked to list as many as three barriers to compliance, 47 percent of the respondents listed one or more. The most common were:

- Vendors may not meet the implementation date.
- Third party payers, trading partners, and carriers may not be compliant.
- Implementation is costly.

The majority of the respondents who cited barriers expressed concerns that external entities, over which they have no control, may affect their ability to transmit and receive HIPAA compliant transactions.

CONCLUSION

According to respondents, Medicare Part B providers are making progress toward meeting the compliance target of October 16, 2003, for implementing the HIPAA electronic transaction standards and code sets. Ninety percent or more of the providers have developed implementation schedules and internal and external testing strategies, and are working with system vendors to implement the electronic standards. Furthermore, more than 85 percent are relying on their professional associations to assist them in developing implementation strategies. When asked about barriers to achieving compliance, respondents expressed concern that vendors and trading partners may affect their ability to meet the compliance date.

APPENDIX A

Glossary of Selected HIPAA-related Terms and Acronyms

Administrative Simplification: the use of mandated standards for the electronic exchange of health care data and specific measures to protect the security and privacy of personally identifiable health care information.

Clearinghouse: an entity that processes information received from one entity in a nonstandard format into a standard transaction, or receives a standard transaction and converts it to a nonstandard format for a receiving entity.

Code Set: the tables of terms, medical concepts, diagnostic codes, or procedure codes and descriptions used to encode information in a transaction.

Contingency Plan: a plan developed by covered entities to provide an alternative for submitting or receiving HIPAA electronic transactions after October 2003, in the event that the covered entity's system conversion fails or is incomplete.

Covered Entity: any health plan, health care clearinghouse, or a health care provider who transmits any health information in electronic form in connection with a transaction covered by the HIPAA standards.

Electronic Data Interchange (EDI): any electronic exchange of formatted data.

EDI Translator: a software tool for accepting an EDI transmission and converting the data into another format, or for converting a non-EDI file into an EDI format for transmission.

Medicare Part B Provider: includes physicians, durable medical equipment providers, diagnostic laboratories, radiology services, chiropractic services, nurse practitioners, and physician assistants.

Sequencing: a process plan developed by a covered entity to implement each of the transaction standards in a logical sequence.

Standard Transactions: the exchange of information between two parties that complies with the requirements established under HIPAA.

Trading Partner: an external entity, such as a customer, with whom the covered entity does business. A trading partner can be so designated for some purposes and considered a business associate for other purposes.

Translator: see EDI translator.

Vendor: software and/or hardware entities that provide HIPAA compliant services, consulting, and/or products to covered entities. Vendors may be business associates or trading partners.

APPENDIX B

Confidence Intervals for Key Survey Questions

The following tables show the point estimates and 95 percent confidence intervals for selected statistics. These statistics are based on an 85 percent response rate to our survey.

Compliance/Testing

Survey Question	Response	Point Estimate	95 Percent Confidence Interval
Has your organization submitted a compliance extension form under the Administrative Simplification Compliance Act?	All respondents who answered "yes"	95.5%	89.9% - 100.0%
How ready do you believe your organization is, at this point, to implement the HIPAA electronic transaction standards?	All respondents who answered "5," "4," or "3" on a scale of 1 to 5 (for levels of satisfaction)	87.5%	79.7% - 95.3%
How confident are you that your organization will meet the October 2003, target for implementing the electronic transactions?	All respondents who answered "5," "4," or "3" on a scale of 1 to 5 (for levels of satisfaction)	94.2%	88.6% - 99.9%
Has the organization begun any testing of its applications of the HIPAA electronic transactions?	All respondents who answered "yes"	45.8%	33.1% - 58.4%
Does your organization have an overall strategy for testing its HIPAA compliant data systems?	All respondents who answered "completed," "underway," or "plan to"	96.1%	91.9% - 100.0%
Does the testing strategy include internal and external data interfaces?	All respondents who answered "completed," "underway," or "plan to"	89.9%	83.0 - 96.9%
Has your organization received any notices from the fiscal intermediaries or carriers regarding coordination of testing of HIPAA electronic transactions?	All respondents who answered "yes"	56.3%	43.7% - 69.0%

Strategies/Contingency Planning

Survey Question	Response	Point Estimate	95 Percent Confidence Interval
Is your organization currently using clearinghouse(s) or other organizations to process any part of its HIPAA electronic transactions?	All respondents who answered “yes”	81.7%	72.0% - 91.5%
Is your organization currently working with a systems vendor(s) to implement the HIPAA electronic standards?	All respondents who answered “completed,” “underway,” or “plan to”	94.9%	89.2% - 100.0%
Has your organization used its professional association(s) for information to assist you in developing a transaction compliance strategy?	All respondents who answered "completed," “underway,” or “plan to”	85.8%	77.0% - 94.6%
Has your organization created a schedule to implement the changes in its data system to comply with the HIPAA electronic transaction standards deadline?	All respondents who answered “completed,” “underway,” or “plan to”	96.6%	92.5% - 100.0%
Has your organization purchased new software, hardware, or system component(s) to meet transaction compliance requirements	All respondents who answered “completed,” “underway,” or “plan to”	68.1%	56.1% - 80.1%
Have you, your contracted vendor(s), or any consultants conducted a cost/benefit analysis for implementing the HIPAA electronic transaction standards?	All respondents who answered “yes”	27.4%	14.9% - 39.8%
Has your organization developed a contingency plan in the event its system is not compliant by October 2003?	All respondents who answered “completed,” “underway,” or “plan to”	56.8%	43.9% - 69.8%

Barriers

Survey Question	Response	Point Estimate	95 Percent Confidence Interval
How satisfied are you with the resources your organization is committing to meet the HIPAA electronic transaction standards?	All respondents who answered “5,” “4,” or “3” on a scale of 1 to 5 (for levels of satisfaction)	92.4%	85.5% - 99.3%

We compared responses among the three strata of providers: stratum1 (less than 501 claims), stratum 2 (501 to 5,000 claims), and stratum 3 (more than 5,000 claims) for six questions, which we thought might show significant differences among strata. Only one question is statistically significant at the 95 percent confidence level. Using the Bonferroni method for multiple comparisons, a comparison was statistically significant if the p-value was less than 0.05 divided by 6 or approximately 0.008.

Compliance/Testing

Survey Question	Measurement	Point Estimate	Chi-Square Test	
			Degrees of Freedom	P-value
How confident are you that your organization will meet the October 2003, target for implementing the electronic transactions?	All respondents who answered "5," "4," or "3" on a scale of 1 to 5 (for levels of satisfaction)	95.0 stratum 1 91.1 stratum 2 97.7 stratum 3	2	0.390
Has your organization begun any testing of its applications of HIPAA electronic transactions?	All respondents who answered "yes"	50.0 stratum 1 28.9 stratum 2 55.8 stratum 3	2	0.023

Strategies/Contingency planning

Survey Question	Measurement	Point Estimate	Chi-Square Test	
			Degrees of Freedom	P-value
Is your organization currently using clearinghouse(s) or other organizations to process any part of its HIPAA electronic transactions?	All respondents who answered "yes"	82.5 stratum 1 79.1 stratum 2 72.1 stratum 3	2	0.524
Has your organization identified the steps necessary to implement the HIPAA electronic standards?	All respondents who answered "completed," "underway," or "plan to"	100.0 stratum 1 95.6 stratum 2 97.6 stratum 3	2	0.221
Does your organization have a sequencing (prioritization) strategy for implementing the HIPAA electronic transactions?	All respondents who answered "yes"	45.9 stratum1 54.5 stratum 2 78.0 stratum 3	2	0.007*
Has your organization developed a contingency plan in the event the system is not compliant by October 2003?	All respondents who answered "completed," "underway," or "plan to"	58.3 stratum 1 51.1 stratum 2 68.3 stratum 3	2	0.264

* Statistically significant at the 95 percent confidence level. Additionally, 47.8 percent of providers who submitted up to and including 5,000 claims (strata 1 and 2) have a sequencing strategy, compared with 78.0 percent of providers who submitted more than 5,000 claims (stratum 3). This difference is significant at the 95 percent confidence level (p-value of 0.002).

APPENDIX C

Nonrespondent Analysis

To evaluate the effect of nonrespondents on the results of the survey, we performed three chi-square tests. The differences in response rate among the strata were not statistically significant at the 95 percent confidence level.

Stratum	Number of Claims	Response Rate	Chi-Square Test	
			Degrees of freedom	P-value
1	1 to 500 claims	80.0%	2	0.376
2	501 to 5,000 claims	90.0%		
3	5,001 claims or more	86.0%		

The difference in response rate between durable medical equipment (DME) suppliers and all other providers was significant at the 95 percent confidence level. We evaluated the possible effect of this difference on our estimate that 94.2 percent of Medicare Part B providers have moderate to high expectations that they will be compliant with HIPAA standards by October 2003. Assuming that the non-respondents (none of whom were DME providers) had responded to the question, "How confident are you that your organization will meet the October 2003 target for implementing the electronic transactions?" using the weighted proportion for respondents who were not DME providers, then the estimate change is negligible, from 94.2 percent to 94.1 percent.

Type of Provider	Response Rate (Weighted)	Chi-Square Test	
		Degree of Freedom	P-value
DME provider	100.0%	1	0.027
All other providers	80.2 %		

Analysis by Time of Response

As an additional guard against biased results, surveys may be reviewed for differences which exist between early and late respondents. The rationale is that late respondents and nonrespondents may share certain tendencies. For example, when compared to early respondents, late respondents and nonrespondents could have similar characteristics with respect to HIPAA readiness.

We compared the proportion of Part B providers who had moderate to high expectations that they will be in compliance between providers who responded on or before March 1, 2003, (68.0 percent of the respondents) and providers who responded after that date. The difference was not significant at the 95 percent confidence level.

Date of Response	Number of respondents	Proportion who expected to be compliant (weighted)	Chi-Square Test	
			Degree of Freedom	P-value
On or before March 1, 2003	87	95.1%	1	0.682
After March 1, 2003	41	92.3%		

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