

The 2006 Health Information Exchange Review provides an overview of electronic data interchange (EDI) in Maryland using 2005 government and private payer electronic and paper census data. In 2005, private payer EDI increased by about 4 percent to roughly 68 percent. Government payers typically report a higher rate of EDI; the combined government and private payer EDI increased to approximately 77 percent statewide in 2005, an increase of about six percent.

EDI in health care is defined as the computer-to-computer exchange of administrative or clinical health care information using standards defined by the American National Standards Institute (ANSI). This group is responsible for creating and maintaining standard electronic formats for all types of industries.¹ EDI was first used in the 1970's by the transportation industry and quickly expanded to the retail food and automotive industries. Health care EDI was set in motion in the early 1980's, when Medicare began to accept claims electronically. Since that time, health care EDI has grown to include administrative and clinical transactions.

In 1996, Congress passed the Health Insurance Portability and Accountability Act (HIPAA) as a step in reforming health care in the United States. Subpart E of this law contained a section on Administrative Simplification that sought to standardize electronic code sets to allow for simplified and streamlined transmissions of electronic information. The overall goal was to reduce administrative burdens in the health care industry by adopting and requiring the use of standardized, electronic transmission of administrative and financial data. Additionally, provisions were established for rules regarding the privacy and confidentiality of personal health information, the security of protected health information, and unique identifiers for health payers and providers.

Effective October 16, 2003, all HIPAA covered entities were to comply with the electronic transaction standards that are included in the HIPAA Administrative Simplification provision. The final Electronic Transactions and Code Sets rule was published in August 2000 with modifications published on February 20, 2003. To be in compliance, covered entities must be able to transmit and receive

covered electronic transactions in the standardized HIPAA format. Covered entities are defined as health plans, health care clearinghouses, and health care providers who transmit any health information in electronic form in connection with a transaction for which standard requirements have been adopted. Covered transactions include Health Care Claims, Health Plan Eligibility, Health Claim Status, Claim Payment and Remittance Advice, Enrollment/Disenrollment in a Health Plan, Referral Certification and Authorization, and Health Plan Premium.

On December 28, 2000, the Secretary of the United States Department of Health and Human Services published the final privacy provisions of the Administrative Simplification section of the Health Insurance Portability and Accountability Act of 1996 (HIPAA-AS). This regulation established new requirements governing the use and disclosure of health information by health plans, health care clearinghouses, and certain health care providers. Many provisions of the regulation also apply indirectly to the business associates of these entities as well as to employers and other sponsors of group health care plans.

The Maryland Health Care Commission (Commission or MHCC) adopted regulations, COMAR 10.25.09, Requirements for Payers to Designate Electronic Health Networks, which require payers meeting a select criteria to report health care transaction volumes to MHCC on an annual basis. Each year, MHCC reports on private and government payer electronic claim volumes. Information contained in this year's Health Information Exchange Review focuses on the six large Maryland private payers (Aetna, CareFirst, Cigna, Kaiser, MAMSI, and United Healthcare) and the seven Maryland Medicaid Managed Care Organizations or MCOs (AmeriChoice, AMERIGROUP, Coventry Healthcare Diamond Plan, Helix Family Choice, Jai Medical Systems, Maryland Physicians Care, and Priority Partners).

EDI vastly expands the potential to put health information to use in health care settings. In 2004, President Bush issued an Executive Order establishing the Office of the National Coordinator for Health Information Technology (ONC) under the United States Department of Health and Human

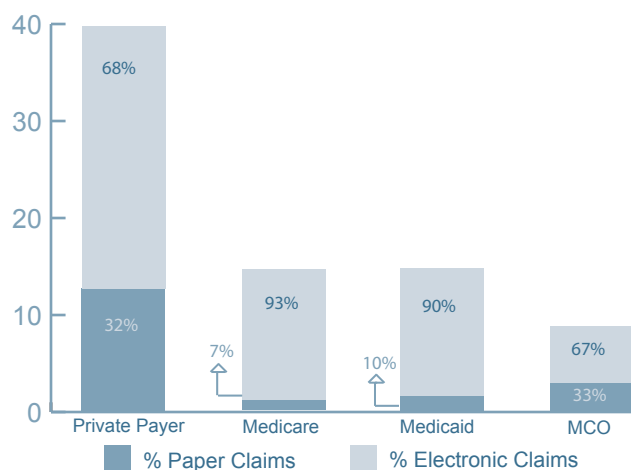
Services to develop and implement an interoperable “consumer-centric and information-rich” health information technology infrastructure, to exchange health information, and to improve the quality and efficiency of health care. Many federal, private sector, state, and regional health information initiatives are underway to realize this vision. EDI provides the foundation for the development of health information exchange (HIE) for clinical information through a comprehensive framework of standards for the exchange, integration, sharing, and retrieval of electronic health information.

TRENDS

Government & Private Payers

An overview of 2005 practitioner and hospital paper and electronic claim volumes is shown in Figure 1 below. Medicare, with 93% of claims received electronically, has been able to achieve such a high level of EDI due to the Administrative Simplification Compliance Act (ASCA). ASCA prohibits, with limited exceptions, payment to providers for services that were not billed electronically. In addition, providers can download free Medicare electronic billing software. Medicare has also increased the number of days a paper claim is held before it is paid from 27 days to 29 days.² Electronic claims are subject to a 14-day hold before payment is issued. Private payers and Medicaid Managed Care Organizations (MCOs) receive about two-thirds of their claims electronically. To increase provider electronic claim submissions, private payers have targeted provider groups and individual providers, citing the ability to increase office efficiency and receive faster reimbursement when claims are submitted electronically.

Figure 1. 2005 Government & Private Payer Practitioner & Hospital Claims

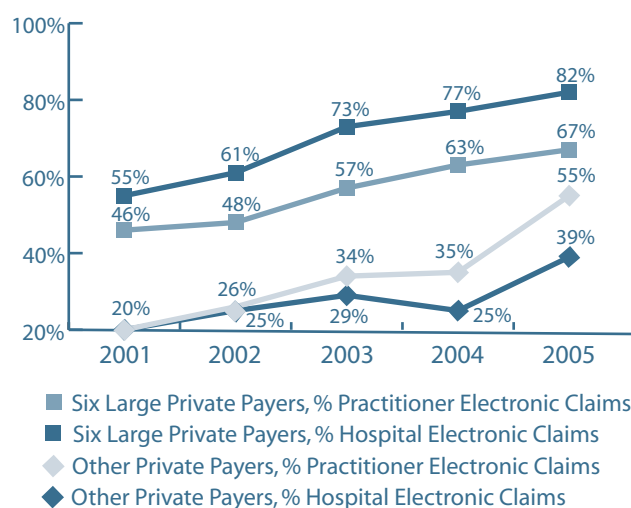


In 2005, private payer practitioner and hospital claim volume, at 40 million, was slightly more than the combined government payer claim volume of approximately 38 million. The private payer market in Maryland is dominated by six payers -- Aetna, CareFirst, Cigna, Kaiser, MAMSI,³ and United Health Care -- which accounted for approximately 95% of the private payer practitioner and hospital claims in 2005. CareFirst accounted for the majority share, with about 59% of private payer claims. These six payers drive the EDI share in Maryland; the percentage of electronic claims is dependent on the success of their EDI initiatives.

Private Payer Trends

EDI growth among the six large payers has continued to increase over the last five years. Figure 2 indicates a continual upward trend in the share of electronic hospital and practitioner claims for the six largest payers. Collectively, the other payers account for a smaller share of electronic claims, but reported a sizable increase in their share of electronic claims over the last year. The smaller EDI share of the other private payers may in part be due to the small Maryland market share; these payers may not devote as many resources to EDI promotion, and providers may change their systems to generate electronic claims given the small volume of claims that are sent to these payers.

Figure 2. Private Payer Practitioner & Hospital Electronic Claim Trends, 2001 - 2005



Private payers see the widespread adoption of EDI as creating the foundation on which to build provider acceptance of and confidence in using technology beyond just claims submission. “Insurance companies are positioned to assume a leadership

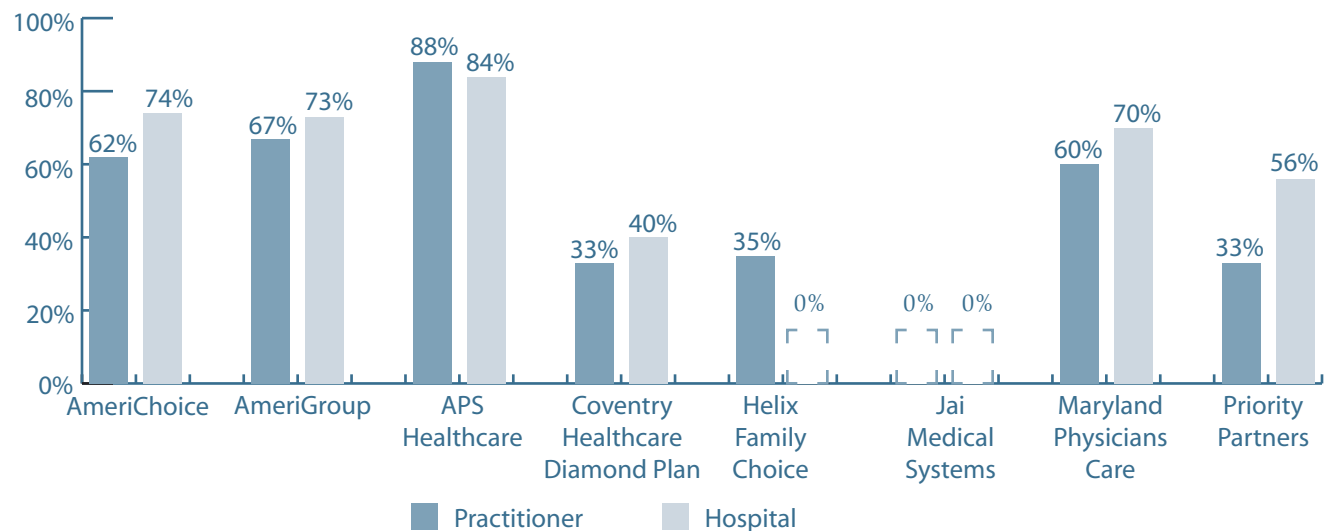
role in transforming the U.S health system over the next 10 years. . . . By investing in technology to support consumer-directed health care, insurers will redefine the relationships among payers, providers and patients, and create the foundation of technology architecture to support a nationwide health information network.”⁴ According to Bruce Goodman, a senior vice president at Humana, “If we can get the pipes laid to start administrative transactions, then we can lay down an infrastructure for clinical transactions, and then we can add more to the pipeline.”⁵

Maryland Managed Care Organizations (MCOs)

The Maryland Medicaid MCOs include AmeriChoice, AMERIGROUP, Coventry Healthcare Diamond Plan, Helix Family Choice, Jai Medical Systems, Maryland Physicians Care, and Priority Partners. These seven MCOs represent approximately 75% of the Medicaid-eligible population.⁶ The MCOs are considered to

be a covered entity and required to comply with the HIPAA-Administrative Simplification provisions. The MCOs have made significant progress accepting claims electronically. Four MCOs reported an electronic claims share greater than 60 percent with APS Healthcare, which provides behavioral health services for Medicaid, above 80 percent for both hospital and practitioner claims. Coventry Healthcare, Helix Family Choice and Priority Partners reported their share of electronic practitioner claims around 34 percent. Helix Family Choice did not report accepting any electronic hospital claims last year. MCOs that lag in accepting electronic claims are typically smaller payers with limited capital to invest in technology. Nearly all the small MCOs have taken steps to comply with HIPAA-AS requirements. Jai Medical Systems is the only MCO that did not accept electronic claims in 2005. Jai Medical Systems reported that they have recently implemented technology to support electronic claims.

Figure 3. 2005 Medicaid MCO Practitioner & Hospital Electronic Claim Transactions



Six Large Private Payers

Nearly all of the six large payers reported an increase in their share of electronic claims as compared to the prior year. As shown in Table 1, two payers reported a fairly substantial growth in their share of electronic practitioner claims. Kaiser increased their electronic practitioner claims by about six percent, and attributes this increase to a successful EDI promotion strategy that spanned across Claims Administration and Provider Relations. CareFirst increased practitioner electronic claims by approximately five percent, which they attribute to their daily monitoring of EDI issues, working with

their network vendors, and their e-claim or free direct electronic claim submission interface.⁷ Among the six large private payers, United Healthcare reported no changes in their share of electronic practitioner claims over the last year.

Nearly all payers reported an increase in the percent of electronic hospital claims in 2005. CareFirst reported the largest share of electronic claims at approximately 90 percent while Cigna reported the largest increase at nearly 4 percent. Generally speaking, hospitals have made significant

Table 1. Six Large Private Payers - Percentage of Electronic Claims, 2004 – 2005

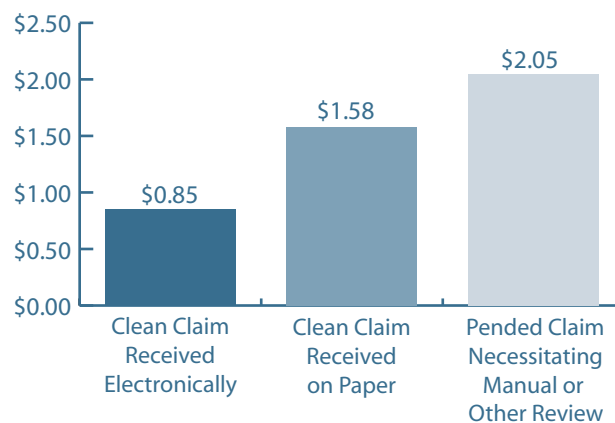
Payer	Practitioner			Hospital		
	2005	2004	% Change	2005	2004	% Change
Aetna	69%	67%	2%	73%	77%	-4%
CareFirst	73%	68%	4%	90%	88%	3%
Cigna	69%	66%	3%	73%	69%	4%
Kaiser	48%	42%	6%	60%	59%	1%
MAMSI	46%	44%	2%	72%	70%	2%
United Healthcare	68%	68%	0%	77%	77%	0%
Total Six Large Private Payers	68%	64%	4%	83%	81%	2%

progress in maximizing their potential to submit claims electronically. Payer changes relating to authorization and attachments have also been a factor in boosting electronic hospital claims. Aetna was the only payer to report a decrease in their share of electronic claims. United Healthcare was the only payer to report no changes in their share of electronic hospital claims from the prior year.

ELECTRONIC CLAIMS REDUCE ADMINISTRATIVE COSTS – A NATIONAL STUDY

A study of issues surrounding claims processing and costs was conducted by America's Health Insurance Plans (AHIP) in the winter of 2005-2006. The study surveyed data from 25 million claims from 26 health insurance companies of varying size. The study showed that the percentage of claims received electronically increased from 44% in 2002, to 75% in 2006. Maryland's experience during this time period is similar, increasing from about 45% in 2002, to approximately 68% in 2005. As shown in Figure 4 below, the study also found that electronic claims cost less to process than paper claims, and that the difference in processing costs widened between 2002 and 2006.⁸ Claims may be suspended and payment delayed when payers require additional information. The AHIP study found that pended claims accounted for 14% of all claims and that 24% of claims were pended due to coverage issues and eligibility issues.

In response to the impact pended claims had on provider accounts receivable in 2005, the Council for Affordable Quality Health Care (CAQH), a not-for-profit alliance of health plans, networks, and

Figure 4. Average Cost to Process a Claim

Note: Clean claims are those which require no additional information to be processed.

trade associations that collaborate on initiatives to simplify health care administration, launched the Committee on Operating Rules for Information Exchange (CORE). The Phase I CORE initiative establishes operating rules to expand the HIPAA eligibility transaction. CORE rules mandate use of data elements that are optional or situational in the HIPAA eligibility transaction. Providers using the CORE eligibility inquiry transaction will receive more detailed eligibility information from payers using the CORE eligibility response transaction. CORE has received support from over 80 industry stakeholders, including health plans, CMS, providers and provider associations, practice management system vendors, and electronic health networks. Maryland payers

participating in CORE include Aetna, CareFirst, Cigna, Coventry Health Care, Kaiser, and United Healthcare, as well as several MHCC-certified electronic health networks. University Physicians, Inc. is the only Maryland provider organization currently participating in CORE. Future CORE initiatives will include development of more detailed components for the eligibility transaction, and development of an initial set of rules for the claim status inquiry and response transaction.

OTHER ADMINISTRATIVE ELECTRONIC HEALTH CARE TRANSACTIONS

Transaction standards for Health Care Claims, Health Plan Eligibility, Health Claim Status, Claim Payment and Remittance Advice, Enrollment/Disenrollment in a Health Plan, Referral Certification and Authorization, and Health Plan Premium were implemented as part of HIPAA-AS. The Final Rule adopting changes to the HIPAA Standards for Electronic Transactions was published in the Federal Register on February 20, 2003. The proposed rule for an Electronic Health Claim Attachments standard was published in September 2005. For each standard transaction, the rule sets forth the format, the data elements required to structure the format, and the data content for each of the data elements, which includes designated code sets. The Electronic Transaction and Code Set Standards states that covered entities must use the adopted standards if they conduct any of the standard transactions with other covered entities.⁹

HIPAA transactions can be used by providers in two ways: either via electronic transmission of a batch

file, whereby health care transaction information for multiple patients or claims are transmitted at the same time, or by entering patient information directly into a payer's website, one at a time. An exception was made in the rule for direct data entry transactions, stating that when direct data entry is used, "... the applicable data content and data condition requirements of the standard ...¹⁰ must be used; the format requirements of the standard, however, are not required.

As shown in Figure 5 below, the number of private payers supporting eligibility, claim status, remittance advice, and enrollment/disenrollment transactions increased significantly in 2005. Information reported by the six large payers and shown in Table 2, represents both batch and direct data entry or real-time transactions. The volume of eligibility transactions continues to exceed the other transactions. Use of the Referral Certification & Authorization transaction has consistently lagged behind the other transaction types. Beyond electronic claims, only United Healthcare can accept most other HIPAA transactions in a batch mode. Batch mode is beneficial to providers interested in submitting multiple transactions at the same time, as compared to real time transactions that allow for single transaction inquiries. Providers with large patient volumes are generally more interested in batch transactions as it's considered to take less time to conduct as compared to real-time transactions. Most payers have implemented a real-time web application that enables providers to conduct individual transactions. Payers that accept only real-time transactions are not in compliance with the HIPAA electronic transaction standards.

Figure 5. Percent of Private Payers Supporting Other Administrative Electronic Transactions, 2003-2005

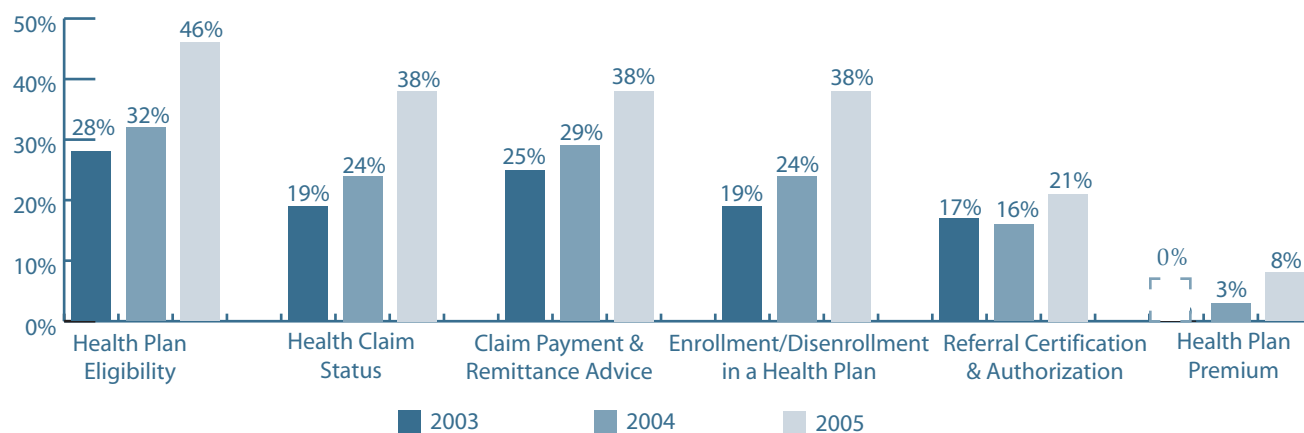


Table 2. Six Large Private Payers Other Administrative Electronic Transactions

Administrative Transaction	Aetna	CareFirst	Cigna	Kaiser	MAMSI	United Healthcare
Health Claim Status	R	R	R	N/A	R	B
Health Plan Eligibility	R	R	R	R	R	B
Claim Payment & Remittance Advice	R	B	R	B	B	B
Referral Certification & Authorization	R	R	R	N/A	R	N/A
Enrollment/Disenrollment in a Health Plan	N/A	R	B	B	R	B
Health Plan Premium	N/A	N/A	B	N/A	N/A	B
KEY: R = Real-time (Direct Data Entry) transaction, B = Batch transaction, N/A = Not Available						

**MARYLAND HEALTH CARE COMMISSION
CERTIFIED ELECTRONIC HEALTH NETWORK PROGRAM**



MHCC certifies electronic health networks (EHNs) conducting business in the state, by the regulatory authority set forth under COMAR 10.25.07, Electronic Health Network Certification. The Commission's program, in partnership with EHNAC, a national accreditation organization, assures that networks operating in Maryland meet industry best practice standards related to privacy and confidentiality, technical performance, business practices, physical and human resources, and security. For many years, Maryland was the only state that required network certification. In June 2006, similar regulations were adopted in New Jersey.

In 2006, MHCC began certifying electronic prescribing networks; two networks are currently in MHCC EHN candidacy status. MHCC plans to promote its certification program with other electronic prescribing networks for certification in 2007. Despite several mergers and acquisitions by networks in the market over the last year, the number of certified networks in Maryland has increased by

four. Approximately twenty certified networks are doing business in the state with ten more networks in candidacy status. The most current listing of certified and candidate networks can be found on the Commission website at: mhcc.maryland.gov/edi/ehn.

Networks play a critical role in the electronic exchange of administrative health care transactions. Networks take non-standard transactions and convert them into HIPAA compliant transactions. They also provide useful information to the provider before the transaction is sent to the payer, as well as after it is received by the payer. Several networks have indicated an interest in expanding beyond administrative transactions and into clinical information. Over the next year, the Commission will be evaluating its network certification program to determine the impact of expanding network certification to include the exchange of clinical information.

EDI – A BRIDGE TO HEALTH INFORMATION EXCHANGE

EDI provides the framework for health information exchange (HIE) and drives the potential to make health care information more readily accessible to consumers and providers. HIEs model data exchange technology using open EDI architecture. HIE is expected to transform the way health care services are delivered by re-shaping the way health information can be accessed and used by providers and consumers. It is widely known that HIE has the potential to eliminate duplication of information each time a patient visits a new provider. Information critical to the provision of timely and high-quality care can be made available where and when it is most needed — at the point of care. EDI has enabled emerging technologies to use established standards for interoperability — electronic prescribing, electronic medical records, and personal health records.

Electronic prescribing is viewed by many as a pioneering technology in the progression toward HIE. Arguably, one of the greatest benefits for providers comes in the form of enhanced efficiencies gained by reducing the number of call backs from pharmacies. Workflow, perceived value, and affordability are key factors that drive provider adoption. The Medicare Modernization Act (MMA) of 2003 established foundation standards for electronic prescribing. The initial foundation standards included eligibility, standards for new prescriptions, prescription refills, prescription change, and cancel requests. Electronic prescriptions have the potential to save lives by negating errors in deciphering prescriptions and alerting providers to adverse drug interactions before they write a prescription.

Most experts agree that electronic medical records (EMR) can improve the efficiency and quality of health care. Investment in EMR systems makes possible significant, demonstrable improvements in efficiency and productivity. Their potential to improve the safety and effectiveness of health care creates substantial — though difficult to quantify — value. The benefit of investment in EMRs will be fully realized when these systems are interoperable. The United States Department of Health and Human Services, Office of the National Coordinator for Health Information Technology has made progress in identifying national data standards to assure interoperability. Some of these standards include the Logical Observation Identifiers Names and Codes (LOINC) code set for reporting lab results and clinical

report information, and Health Level 7 (HL7) for content and format of clinical information.

Personal Health Records (PHRs) not only support patients in managing their care, but also provides them with the ability to electronically disseminate their health information at their discretion and obtain some health care support remotely. A key tenet of HIE is for consumers to be able to participate in their health care, and to have access and control of their health information. PHRs offer a wide range of functionality and services for consumers to document and share their health information. Many public and private employers are exploring or have already begun offering PHRs; a number of payers are populating PHRs with information derived from claims. Recently, five large national employers announced that they will be funding a project with a nonprofit institute to develop a web-based PHR.

EDI is about connecting stakeholders together electronically. Connectivity in an HIE is based on a high degree of interconnectivity and interoperability. Extensible Markup Language (XML) developed by the World Wide Web Consortium (W3C) is emerging as a major technology for interoperable HIE over the Internet. XML enables the exchange of “smart data”, or dynamic information, which can be readily analyzed, sorted, styled, customized and personalized. However, XML alone is not sufficient. Smart data needs to be structured for exchange and its meaning needs to be shared between processing systems. Many believe that EDI has much to contribute to enrich the functionality of XML. XML uses EDI ground rules for interfacing in an HIE with existing provider technology systems. Moreover, it potentially offers a simpler, more affordable, and more attractive Internet technology solution for HIE.

Footnotes

¹ Morris Edwards, "EDI Coming of Age," Communication News, February 1990.

² Payment provisions in the Original Medicare Program Immediately Affected by the Deficit Reduction Act, CMS Fact Sheet, February 10, 2006.

³ MAMSI became part of United Health Group in 2003. Optimum Choice and MdIPA products continue to be offered and supported on MAMSI platforms. As MAMSI Life & Health membership declines, new groups will move to United Healthcare products.

⁴ Transforming Healthcare, Maria Woehr, Insurance & Technology, November 21, 2005.

⁵ Ibid.

⁶ FY 2005 Medicaid enrollment was 638,085 as reported in FY 2007 Budget Highlights, Maryland Department of Budget & Management.

⁷ The direct electronic claim submission was implemented in collaboration with Payerpath, an MHCC-certified electronic health network.

⁸ An Updated Survey of Health Care Claims Receipt and Processing Times, America's Health Insurance Plans (AHIP), Center for Policy and Research, May 2006. AHIP is a trade group for the managed care industry.

⁹ HIPAA Administrative Simplification: Standards for Electronic Transactions; Announcement of Designated Standard Maintenance Organizations, Final Rule and Notice, 45 CFR Parts 160 and 162, Thursday, August 17, 2000.

¹⁰ Ibid, p. 50369.

¹¹ Payerpath, Inc. was acquired by Misys Healthcare Systems in February 2006; NDCHealth Corporation was acquired by Per-Se Technologies in January 2006, and Per-Se Technologies was acquired by McKesson Corporation in November 2006.

¹² California HealthCare Foundation, Moving Toward Electronic Health Information Exchange: Interim Report on the Santa Barbara County Data Exchange, July 2003.

2006 HIE Reporting Payers

Private Payers**Aetna**

Aetna Health
Aetna Life Insurance

CareFirst

CareFirst BlueChoice
CareFirst of Maryland
Group Hospitalization & Medical Svcs.
The Dental Network

Cigna

Cigna Healthcare Mid-Atlantic
Connecticut General Life Insurance

Coventry Health

Coventry Health Care of Delaware
First Health Life & Health Insurance

Alta Health

American Family Life Assurance
American Medical Security Life
American Republic Insurance
Ameritas Life Insurance
Companion Life Insurance

Delta Dental Insurance
DentaQuest Mid-Atlantic
Educators Mutual Life Insurance
Elder Health Maryland HMO
GE Group Life Assurance
Golden Rule Insurance
Graphic Arts Benefits
Group Dental Service of Maryland
Guardian Life Insurance
Humana Dental Insurance
John Alden Insurance
Kaiser Foundation Health Plan
Lincoln Financial Group
Mega Life & Health Insurance
Metropolitan Life Insurance
Mid-Atlantic Vision Services Plan
New England Life Insurance
New York Life Insurance
Principal Mutual Life Insurance
Reliastar Life Insurance
State Farm Mutual Time Insurance
Unicare Life & Health Insurance
Union Labor Life Insurance
United Concordia Companies

United Health Group

MAMSI Life and Health
MD-Individual Practice Assoc.
Optimum Choice
Unimerica Insurance
United Healthcare Insurance
United Healthcare of the Mid-Atlantic
Dental Benefit Providers
Fidelity Insurance

**Medicare and Maryland
Medicaid****Maryland Medicaid Managed
Care Organizations**

AmeriChoice
AMERIGROUP Maryland
APS Healthcare
Coventry Healthcare Diamond Plan
Helix Family Choice
Jai Medical Systems
Maryland Physicians Care
Priority Partners

MHCC is an independent, regulatory commission administratively located within the
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