Electronic Data Interchange

An Information Brief
September 2016

Background

Electronic data interchange (EDI) is the exchange of structured health care data between computer systems, governed by standards.[1] As a business-to-business transaction, EDI dates back to the 1960s where the railroad industry used magnetic tape to transfer information. Over the next 20 years, industry-specific and cross industry standards were defined. By the 1990's, EDI had become an essential component of most industries. In 1991, the Department of Health and Human Services (DHHS) began exploring the challenges of reducing health care costs by replacing paper transactions with standard electronic transactions.[2, 3] In 1996, Congress passed the *Health Insurance Portability Act of 1996* (HIPAA) that created EDI standards to achieve administrative simplification.[4] HIPAA also required that payors, providers, and health care clearinghouses use these standards.[5, 6, 7] The Maryland Health Care Commission (MHCC) annually assesses EDI activity in the State and uses this information to advance EDI diffusion statewide.[8]

2015 EDI Progress

Overview

2015 EDI data was collected from approximately 45 payors, consisting of 34 private payors, nine managed care organizations (MCOs), Medicare, and Medicaid. The information presented in this brief highlights census level information on EDI activity in Maryland for government payors, including Medicare and Medicaid, and the six largest private payors, including Aetna, Inc. (Aetna), CareFirst BlueCross BlueShield (CareFirst), Cigna Healthcare Mid-Atlantic, Inc. (Cigna), Coventry Health Care of Delaware, Inc. (Coventry), Kaiser Permanente Insurance Company (Kaiser), and UnitedHealthcare of the Mid-Atlantic, Inc. (United).

Electronic Claims

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[1] Use of standards can increase efficiencies and reduce administrative costs; actual savings generated may vary by organization based on efficiencies in workflow.
[2] JSCAPE, *Securing HIPAA EDI Transactions with AS2, September 2003.* Available here: http://www.jscape.com/blog/bid/101188/Securing-HIPAA-EDI-Transactions-with-AS2
[3] Information available at: http://www.wedi.org/about-us.
[4] Public Law 104-191.
[5] For the Record, *Chasing Compliance: HIPAA's Electronic Data Interchange Requirements*, January 2007. Available here: http://www.fortherecordmag.com/archives/ftr_01082007p16.shtml
[6] 45 CFR Parts 160, 162, and 164
[7] Administrative transactions are identified by transaction codes and include: health plan eligibility (270/271), health claim status (276/277), referral certification and authorization (278), health plan premium payments (820), enrollment/disenrollment in a health plan (834), and claims payment and remittance advice (835)
[8] Code of Maryland Regulations 10.25.09, *Requirements for Payers to Designate Electronic Health Networks*, requires State-regulated payors with annual premiums of $1M or more, as well as certain specialty payors, such as Medicare, Medicaid, and MCOs, to submit an EDI Progress Report to MHCC annually.

EDI activity in Maryland is consistent with the nation.[9] EDI among government payors continues to exceed private payors. Medicare requires that providers submit electronic claims unless they meet an exception criterion. The most notable change from the prior year is growth in dental EDI, which is largely attributed to CareFirst (Figure 1). Over the last year, CareFirst reported implementing strategies aimed at increasing dental EDI. [10] The increase in dental EDI may also be attributed to enrollment growth in standalone dental plans offered through the Maryland Health Benefit Exchange under the Affordable Care Act (ACA). [11, 12, 13] It is notable that a few payors report having systems in place that can process paper claims in about the same time as electronic claims. Claims submitted on paper are more prone to errors and often require more time to process than electronic claims. Electronic health networks (EHNs), which providers use to submit claims to payors, offer validation services during the submission process.

Table 1. Payor EDI Activity

Maryland EDI Activity Overview									
Claim Type	**Private Payors** *%*			**Government Payors** *%*			**Total** *%*		
	2014	**2015**	**Difference**	**2014**	**2015**	**Difference**	**2014**	**2015**	**Difference**
Practitioner	90.3	90.7	.4	97.9	98.0	.1	94.0	94.5	.5
Hospital	89.9	90.6	.7	98.4	98.6	.2	94.2	94.7	.5
Dental	48.9	71.8	22.9	100.0	100.0	0	85.8	92.0	6.2
Total	**89.1**	**90.1**	**3.2**	**98.1**	**98.2**	**.1**	**93.6**	**94.4**	**.8**

Note: "Total" includes the combined percentage for all claim types.

[9] Nationally, 93.8 percent of claims were submitted electronically in 2014. Council for Affordable Quality Healthcare (CAQH), *2015 CAQH Index, Electronic Administrative Transaction Adoption and Savings*, 2015. Available at: http://www.caqh.org/sites/default/files/explorations/index/report/2015-caqh-index-report.pdf?token=172DEZBt.

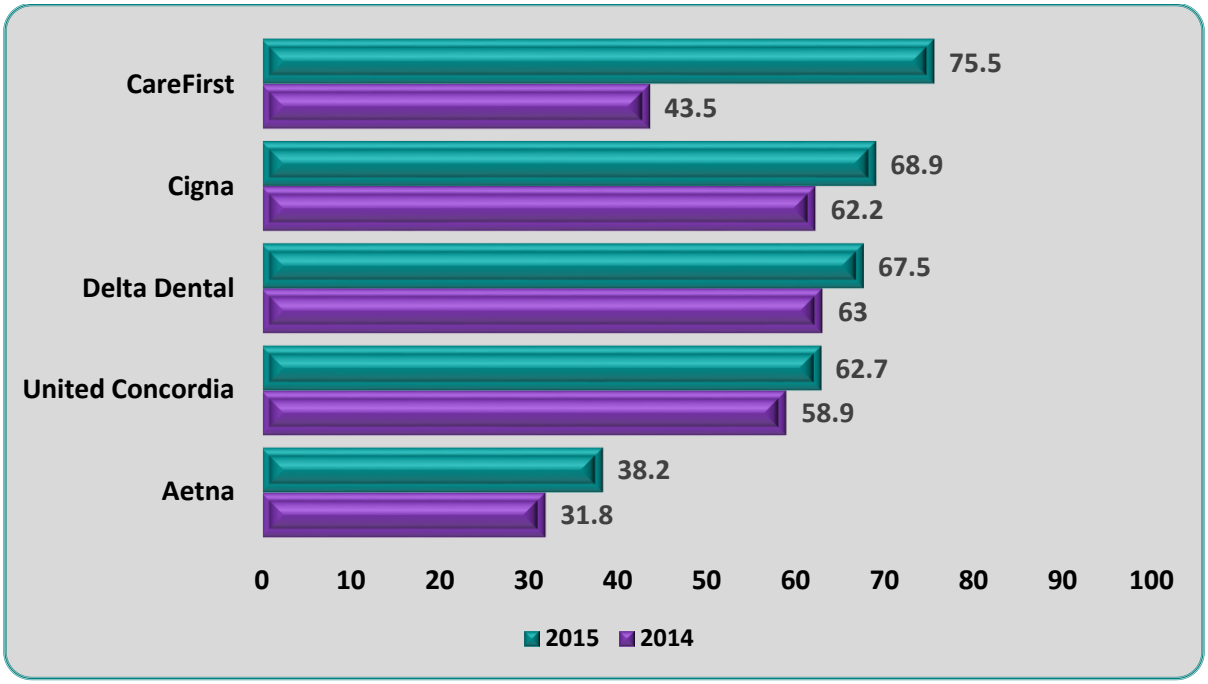
[10] For providers servicing patients in a Dental Health Maintenance Organization plan, claims are not typically submitted to CareFirst for services due to capitation arrangements, which pay a provider a set amount for each enrolled beneficiary. For providers servicing patients in a Dental Preferred Provider Organization plan, claims are submitted to CareFirst for reimbursement resulting in a higher rate of claim submissions.

[11] Public Law 111-148.

[12] The ACA lists pediatric dental coverage as one of the ten essential health benefits that must be offered as either an embedded product in a medical plan or as a standalone product on the exchange. Many individuals needing a pediatric dental plan have had to purchase standalone plans, which are required to cover more services than embedded pediatric dental plans. https://www.healthinsurance.org/faqs/is-pediatric-dental-coverage-included-in-exchange-plans/

[13] *2015 Maryland Health Benefit Exchange Annual Report*. Between November 15, 2015 and September 19, 2015, just under 200,000 beneficiaries enrolled into standalone dental plans. The report is available at: http://www.marylandhbe.com/wp-content/uploads/2015/11/MHBE-AnnualReport2015-Web.pdf

Figure 1. Leading Dental Payors' EDI Activity (%)



Other Administrative Transactions

Payors accept batch transactions or use a web-based portal to receive electronic transactions. Several payors support both types of services for some transactions. Batch transactions are generated from a practice management system, which is used for scheduling and billing. Web-based portals are generally less convenient for practices to use as they require a break in workflow to complete the submission process. Health care claims account for the majority of EDI transactions. Last year, Kaiser began accepting electronic referrals and authorizations from out of network providers, along with other transaction types. Three payors support batch transactions for all transaction types (Table 2).

Table 2. Payor Support of Batch and Web-Based Transactions

Web-Based (W) vs. Batch (B)														
Transaction	**Aetna**		**CareFirst**		**Cigna**		**Coventry**		**Kaiser**		**United**		**Total**	
	W	B	W	B	W	B	W	B	W	B	W	B	W	B
Health Plan Eligibility Inquiry(270)	✓	✓	✓		✓	✓	✓			✓	✓	✓	5	4
Health Plan Eligibility Response(271)	✓	✓	✓		✓	✓	✓			✓	✓	✓	5	4
Health Claim Status Inquiry (276)	✓	✓	✓		✓	✓	✓			✓	✓	✓	5	4
Health Claim Status Response (277)	✓	✓	✓		✓	✓	✓			✓	✓	✓	5	4
Referral Certification and Authorization (278)	✓		✓		✓	✓	✓			✓	✓	✓	5	3
Health Plan Premium Payments (820)		✓		✓		✓		✓		✓		✓	0	6
Enrollment/ Disenrollment in a Health Plan (834)		✓		✓		✓		✓		✓		✓	0	6
Claim Payment & Remittance Advice (835)		✓		✓		✓		✓		✓		✓	0	6
Health Care Claim: Professional (837)		✓		✓		✓		✓		✓		✓	0	6
Health Care Claim: Institutional (837)		✓		✓		✓		✓		✓		✓	0	6
Health Care Claim: Dental (837)		✓		✓		✓				✓		✓	0	5
Total (#)	**5**	**10**	**5**	**6**	**5**	**11**	**5**	**5**	**0**	**11**	**5**	**11**		

Electronic Health Networks

Change Health Care's (formerly Emdeon) share of electronic medical transactions accounts for nearly three quarters of all claim transactions (Figure 2). Change Health Care is one of the nation's largest EHNs and received MHCC certification more than 10 years ago. EHNs seeking MHCC certification are required to obtain national accreditation, which evaluates compliance with over 100 criteria related

to privacy, security, and business practices.[14] As part of the EHN certification process, MHCC evaluates the site audit report preformed as a part of the national accreditation process and provides applicants with recommendations where enhancements in operations would help reduce risks associated with data breaches. EHNs are required to renew their national accreditation and MHCC certification every other year. While all EHNs doing business in the State report accepting medical transactions, only 10 have implemented technology to support dental transactions (Table 3).

Figure 2. Medical Claim Transactions – Share by EHN

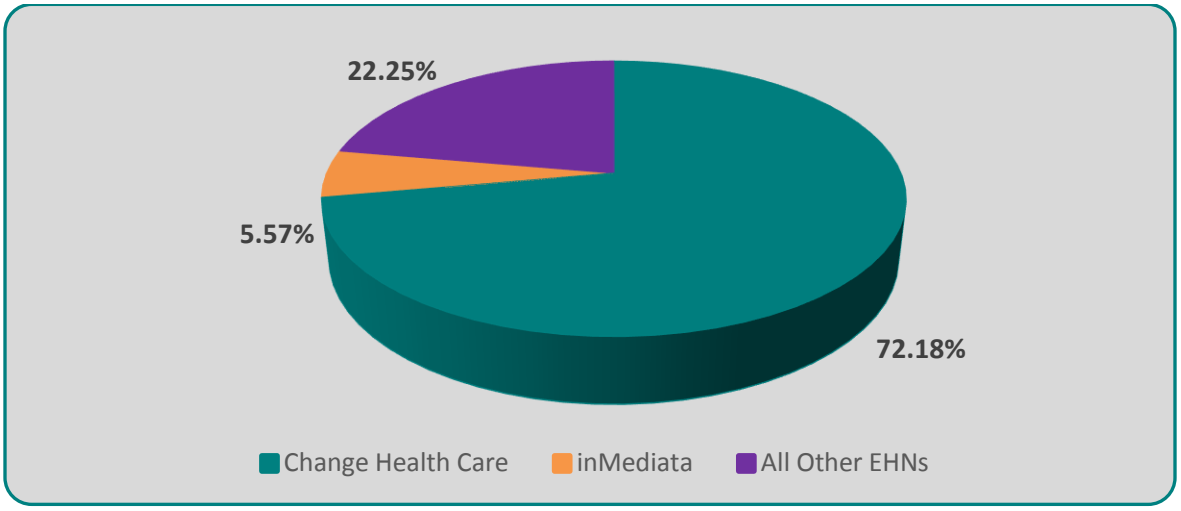


Table 3. MHCC Certified Electronic Health Networks Supporting Dental Transactions

MHCC Certified EHNs and Share of Dental Transactions	
EHN	**% of Dental Transactions**
Change Health Care	66.2
inMediata	25.1
Tesia PCI	5.2
CareStream Dental	1.8
EDI Health Group	1.1
TransUnion Healthcare LLC	<1
One Mind Health	<1
Smart Data Solutions	<1
Office Ally	<1
Post-N-Track Corporation	<1

[14] COMAR 10.25.07, *Certification of Electronic Health Networks and Medical Care Electronic Claims Clearinghouses.*

EDI Supports Health Care Reform

The ACA, which was signed into law on March 23, 2010,provided additional guidance for HIPAA's administrative simplification provisions, and established two new standard transactions: electronic funds transfer and claims attachments. The ACA also required payors to adopt operating rules for all standard transactions and to certify that they comply with the rules. [15, 16] EDI supports the business of health care and its use is expected to increase as new models of care emerge under health care reform initiatives. [17, 18] In January 2015, CMS announced plans to make alternative payment models account for 30 percent of Medicare reimbursement by 2016 and 50 percent by 2018. [19, 20] Achieving health care reform is expected to take years; the ACA changes to EDI increase efficiency of health care operations and encourage future innovation using the standard transactions.

Remarks

EDI is an essential component for creating administrative efficiencies and is needed to support health care reform. Policy challenges affecting EDI utilization locally are generally the same throughout the nation. EDI among most private payors is not expected to increase significantly unless business rules around documentation requirements for claim adjudication change. The diversity of employee benefit programs, in particular the requirements established by self-insured plans, will continue to slow EDI growth in the future. The EDI progress made by Government payors is laudable.

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[15] The ACA required the DHHS to issue operating rules between July 1, 2011 and July 1, 2014 for eligibility for a health plan; health care claims status; electronic funds transfer; electronic remittance advice; health care claims; health care claims attachment; enrollment and disenrollment in a health plan; health plan premium payment; and referral certification and authorization.

[16] Section 1104 of the ACA makes changes to HIPAA's provisions relating to electronic health care transactions.

[17] Managed Healthcare Executive, *Prior auths are here to stay, Value-based shift will have no impact*, May 2015. Available at: managedhealthcareexecutive.modernmedicine.com/managed-healthcare-executive/news/prior-auths-are-here-stay.

[18] Health Affairs Blog, *The Payment Reform Landscape: Capitation with Quality, June 2014.* Available at: http://healthaffairs.org/blog/2014/06/06/the-payment-reform-landscape-capitation-with-quality/.

[19] Harvard Business Review, *The Strategy That Will Fix Health Care*, October 2013. Available at: hbr.org/2013/10/the-strategy-that-will-fix-health-care.

[20] Healthcare Financial Management Association, *Mitigating Financial Risk in Value-Based Care Models*, August 2016. Available at: www.hfma.org/Content.aspx?id=49674.