Electronic Data Interchange

Information Brief

February 2019

Overview

Payers operating in Maryland with an annual premium of one million dollars or more are required by regulation, COMAR 10.25.09, *Requirements for Payers to Designate Electronic Health Networks*, to report on electronic data interchange (EDI) activity annually to the Maryland Health Care Commission (MHCC).[1] Payers submit census level information on seven administrative health care transactions[2]. EDI progress reports were submitted by 32 payers. The six largest private[3] and government payers account for nearly 98 percent of EDI volume. This information brief highlights activity from 2017.

Background

Electronic Data Interchange

EDI originated in the 1960s to enable the electronic sending of cargo information between different computer systems. In 1968, the U.S. Transportation Industry formed the Transportation Data Coordinating Committee and developed a single format to electronically exchange information to resolve the challenges arising from the varied electronic message formats in use by shipping, airlines, railroads, and trucking companies.[4] EDI is used in most industries and standardizes the process of exchanging electronic information.[5, 6]

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) was signed into law on August 21, 1996, by President Bill Clinton. Title II of HIPAA, the Administrative Simplification provisions, requires health plans (payers), health care providers, and health care clearinghouses (collectively, covered entities) to adopt certain privacy and security protections for electronic health

[1] COMAR 10.25.09. Available at: www.dsd.state.md.us/comar/SubtitleSearch.aspx?search=10.25.09.*
[2] Administrative transactions 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), claims payment and remittance advice (835), and heath care claims (837).
[3] Private payers include: Aetna, CareFirst BlueCross BlueShield, Cigna Healthcare Mid-Atlantic, Coventry Health Care, Kaiser Permanente, and UnitedHealthcare, Mid-Atlantic Region.
[4] LogicBroker. *EDI Standards*. Available at: blog.logicbroker.com/blog/2013/08/19/edi-history.
[5] Reference for Business. *Electronic Data Interchange (EDI)*. Available at: www.referenceforbusiness.com/encyclopedia/Eco-Ent/Electronic-Data-Interchange-EDI.html.
[6] X12 is the standard primarily used in the U.S., including in health care. More information is available at: www.truecommerce.com/resources/what-is-edi/edi-history.

information.[7] Covered entities are required to adopt certain national standards for EDI.[8, 9] HIPAA mandates that payers accept electronic transactions; however, it does not mandate EDI use by providers.

EDI and Electronic Health Networks

EDI improves administrative efficiencies and data quality, and can generate cost savings through automation.[10] Most health care EDI transactions are exchanged through an electronic health network (EHN), which serves as an intermediary between payers and providers. The MHCC regulation, COMAR 10.25.07, *Certification of Electronic Health Networks and Medical Care Electronic Claims Clearinghouses*, requires payers that accept electronic administrative health care transactions originating in Maryland to accept electronic transactions only from MHCC certified EHNs. While EHNs provide a number of electronic transaction services to payers and providers, arguably the most important service they provide is reviewing claims to identify errors based on payer adjudication requirements.[11]

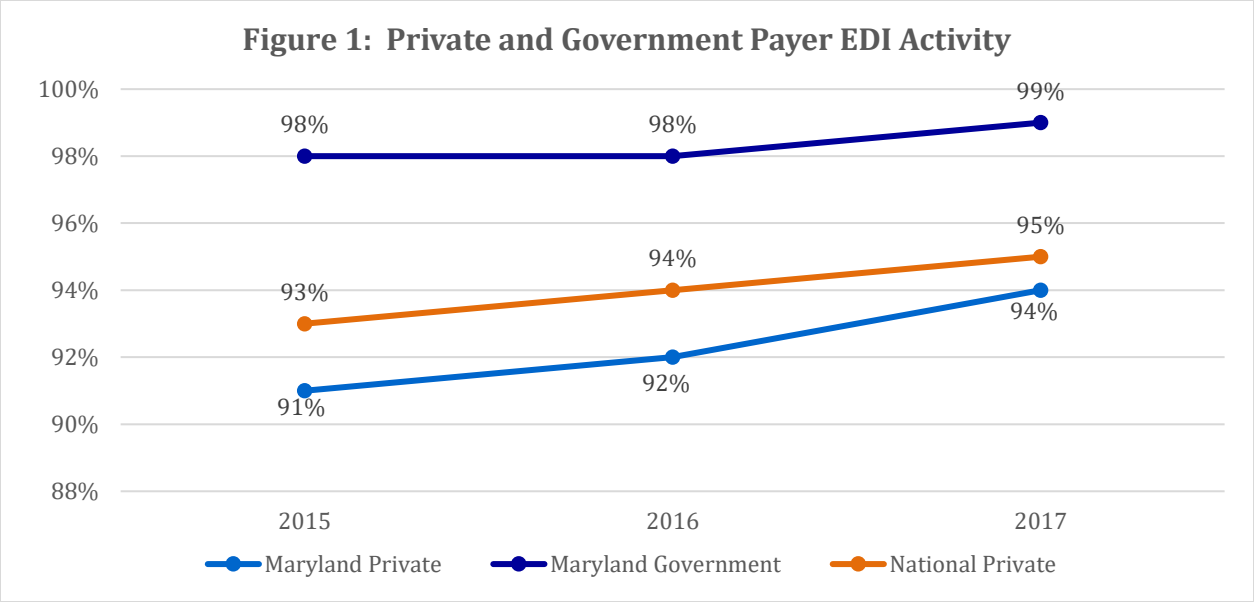
EDI Progress

National and Statewide EDI

EDI adoption nationally is at about 95 percent; Maryland is consistent with the nation. Nationally, private payer EDI increased by approximately one percent from the prior year[12] and locally by about two percent. Among government payers, adoption remains about the same at around 99 percent statewide (Figure 1). Private payers statewide attribute growth to initiatives aimed at helping providers maximize their use of EDI. Government payers require providers to submit claims electronically under most circumstances (Table 1).[13, 14]

---

[7] HHS.gov. *Summary of the HIPAA Security Rule*. Available at: www.hhs.gov/hipaa/for-professionals/security/laws-regulations/index.html.
[8] Liason, *What is Electronic Data Interchange in Healthcare*. Available at: www.liaison.com/blog/2017/02/14/electronic-data-interchange-healthcare/.
[9] HIPAA requires electronic standards ASC X12N or the National Council for Prescription Drug Programs (NCPDP). More information is available at: www.cms.gov/Regulations-and-Guidance/Administrative-Simplification/HIPAA-ACA/AdoptedStandardsandOperatingRules.html.
[10] EDI Basics, *Benefits of EDI*. Available at: www.edibasics.com/benefits-of-edi/.
[11] This is often done through automation that enables software to apply the rules of the various payers to identify issues. More information is available at: www.nearterm.com/what-is-a-healthcare-clearinghouse-medical-billing-electronic-claims/.
[12] CAQH.org. *2017 CAQH Index, A Report of Healthcare Industry Adoption of Electronic Business Transactions and Cost Savings*. Available at: www.caqh.org/sites/default/files/explorations/index/report/2017-caqh-index-report.pdf.
[13] Medicare requires that providers, including practitioners, suppliers, and hospitals submit electronic claims unless they meet an exception criterion.
[14] Medicaid allows providers to submit electronic claims on a direct basis without cost. More information is available at: mmcp.health.maryland.gov/Pages/home.aspx.



*Maryland private payer activity represents adoption among the six largest private payers; government EDI adoption includes Medicare and Medicaid.

Table 1: Maryland EDI Activity (%)

Claim Type	2015			2016			2017		
	Top Six Private	Gov't	Total	Top Six Private	Gov't	Total	Top Six Private	Gov't	Total
Hospital	91	99	95	92	99	95	94	99	97
Practitioner*	91	98	95	92	98	95	94	98	97
Total	**91**	**98**	**95**	**92**	**98**	**95**	**94**	**99**	**97**

*Practitioner claims include physician and non-physician provider Part B claims, such as outpatient, pharmacy, and durable medical equipment suppliers' submissions.

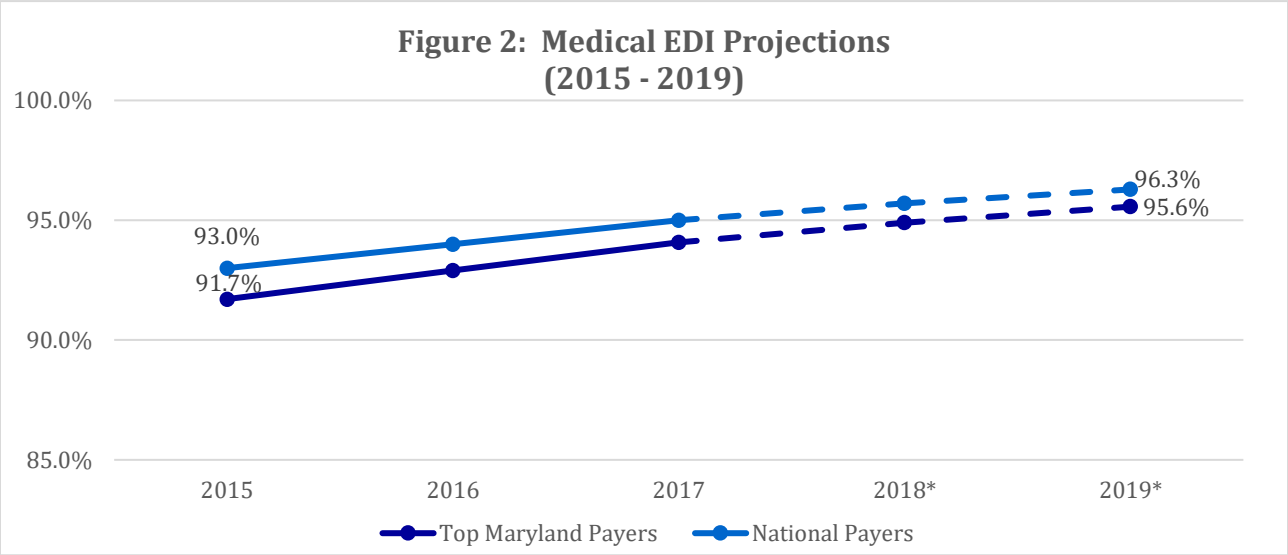
Private Payer – EDI Trends and Impact

Private payers continue to leverage EDI through increased technology investments and changes in business operating rules. EDI growth over the next two years is anticipated to align with the nation. Payers are projected to increase their EDI share to position Maryland within about 0.7 percent of the nation (Figure 2).[15, 16] Increased EDI can lead to cost avoidance for users as resources required to support paper can be dedicated to other activities. Payers operating in Maryland may generate

[15] EDI projections for 2018 and 2019 were calculated by applying the Bass Model of Innovation Diffusion (Bass Model) to the actual percentage of electronic claims from 2015 to 2017 to forecast EDI rates for 2018 and 2019. Projected total claims were calculated using the compound annual growth rate (CAGR) for total claims from 2015 to 2017 to predict total claims for 2018 and 2019. Electronic claims were calculated by multiplying the projected EDI rate by the projected total claims for 2018 and 2019.

[16] The Bass model is used to predict how new products, including technology, will be adopted. More information is available at: www.ncbi.nlm.nih.gov/pmc/articles/PMC1380189/.

additional cost avoidance amounts by increasing their EDI share around one percent per year (Table 2).[17, 18]



*Projections based on growth from 2015 to 2017.[19]

Table 2:
Estimated Annual Impact – One Percent Growth in EDI Share
(Calculated Based on EDI Trends)

	2018		2019	
Payer	Electronic Claims Increase #	Cost Avoidance $	Electronic Claims Increase #	Cost Avoidance $
Aetna	49,153	115,510	38,128	89,602
Coventry	481	1,130	56	132
CareFirst	134,297	315,597	115,102	270,490
Cigna	25,712	60,423	20,850	48,997
Kaiser	20,809	48,902	5,136	12,070
United	25,129	59,053	20,987	49,320
Total	**255,581**	**600,614**	**200,260**	**470,611**

*Estimates are based on growth from 2015-2017; the existing trend was applied to projections through 2019.[20]

[17] Estimated cost avoidance is based on total administrative cost savings.
[18] Cost avoidance estimates were calculated by taking the difference in paper claims submissions reported from payers from 2016 to 2017 multiplied by $2.35 (the estimated cost avoidance generated from an electronic claim submission). See n.12, *Supra.*
[19] See n.15, *Supra*.
[20] See n.15, *Supra*.

Summary

Payer and provider use of EDI is laudable. Private payer EDI rates will continue to trail government payers largely due to complex billing requirements. Self-insured plans often have unique requirements around claim supporting documentation.[21] Providers frequently submit paper claims when attachments are required.[22] Payers' continued investments in EDI will generate greater efficiencies, enable faster decision-making, and improve provider responsiveness.

[21] Self-insured plans account for almost 66 percent of the under 65 population; Maryland Insurance Administration. 2*018 Report on The Number of Insured and Self-Insured Lives*. Available at: www.mdinsurance.state.md.us/Consumer/Appeals%20and%20Grievances%20Reports/2018-Report-on-the-Number-of-Insured-and-Self-Insured-Lives-MSAR7797.pdf.

[22] MedPage Today. *When will HHS Issue Rules for 'Electronic Attachments'?* Available at: www.medpagetoday.com/practicemanagement/informationtechnology/74682.