# Electronic Data Interchange in Health Care

*Examining Impact and Reasons for Paper Claims*

October 2021

## Introduction

One goal of the Healthcare Insurance Portability and Accountability Act of 1996 (HIPAA)[1] was to improve the efficiency and effectiveness of the nation's health care system. The Administrative Simplification provisions specify electronic standards for the transmission of health information, among other things. Under HIPAA, the Department of Health and Human Services adopted national standards for electronic transactions. The HIPAA Electronic Data Interchange (EDI) rule defines the types of transactions and specifies the exact (standardized) format for each transaction record allowing for the secure exchange of health care data (from computer to computer) to carry out financial and administrative activities.[2, 3]

Nearly every industry relies on EDI to facilitate the secure exchange of information electronically.[4] EDI in health care automates business processes from insurance eligibility checks, claims submission and payment, and data reporting.[5] Claim submissions are the most common electronic transaction in health care.[6] A small percentage of medical claims are submitted using paper for Maryland (<3 percent) and the nation (4 percent).[7] Cost savings achieved by use of electronic transactions are significant with an estimated per transaction savings opportunity of $1.10 for payers[8] and $1.33 for providers.[9]

The Maryland Heath Care Commission (MHCC) conducted qualitative interviews (via the telephone) with nine ambulatory practices (practices) consisting of (four) hospital-owned and (five) independent primary care and specialty practices located in Maryland.[10] Practices interviewed primarily submit claims electronically. Interviews focused on the reasons why practices submit paper claims. Common themes emerged from discussions with practice administrators and medical billing directors and other personnel. The information included herein is generally representative of the leading reasons why claims may not be submitted electronically.

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[1] Public Law 104-191
[2] Centers for Medicare and Medicaid Services. *Transactions Overview*. Available at: www.cms.gov/Regulations-and-Guidance/Administrative-Simplification/Transactions/TransactionsOverview.
[3] Centers for Medicare and Medicaid Services. *Adopted Standards and Operating Rules*. Available at: www.cms.gov/Regulations-and-Guidance/Administrative-Simplification/HIPAA-ACA/AdoptedStandardsandOperatingRules.
[4] A3logics. *Top 6 Industries That Are Using EDI At Its Best*, March 2021. Available at: www.a3logics.com/blog/top-industries-that-are-using-edi.
[5] EDI Basics. *HIPAA EDI Document Standard*. Available at: www.edibasics.com/edi-resources/document-standards/hipaa/.
[6] Availity. *Infographic - 4 Reasons Why Providers Submit Paper Claims*, June 2018. Available at: www.availity.com/Blog/2018/June/Infographic---4-Reasons-Why-Providers-Submit-Paper-Claims.
[7] CAQH. *2020 CAQH Index Closing the Gap: The Industry Continues to Improve, But Opportunities for Automation Remain*, 2021. Available at: www.caqh.org/sites/default/files/explorations/index/2020-caqh-index.pdf.
[8] Payer claim submission cost per transaction is $1.18 for manual and $0.08 for electronic.
[9] Provider claim submission cost per transaction is $2.52 for manual and $1.19 for electronic.
[10] This included four multi-specialty and five primary care practices.

## Insights from Practice Interviews

Practices shared insights about the circumstances that may result in a paper claim submission. The two most common reasons for paper claims include 1) attachments and 2) corrections and denials.[11] Findings from interviews provide perspective behind the small percentage of medical claims submitted on paper.

### Attachments

Attachments are needed when payers require certain supporting documentation, such as to demonstrate medical necessity (e.g., x-rays, prescriptions, handwritten reports, etc.).[12] Practices report limited ability to submit attachments to payers electronically.[13] For this reason, claims requiring attachments are generally submitted on paper with all the necessary documentation. Some practices automatically submit paper claims for services that have a high volume of requests from payers for additional information to avoid delays or denials. This includes claims that use certain modifiers for increased procedural or repeat services[14] or involve coordination of benefits to determine the primary payer.

### Corrections and Denials

Claim resubmissions occur to correct certain information or appeal a denial, typically after a claim has been adjudicated (paid or denied). This can be due to incorrect or insufficient information pertaining to an incompatible diagnosis (ICD-10) code, patient demographic information, insurance information, or insufficient supporting documentation. Practices report paper resubmissions helps prevent claims from being flagged as duplicates. In some instances, practices identify errors after initial submission and correct the claim before it is adjudicated.

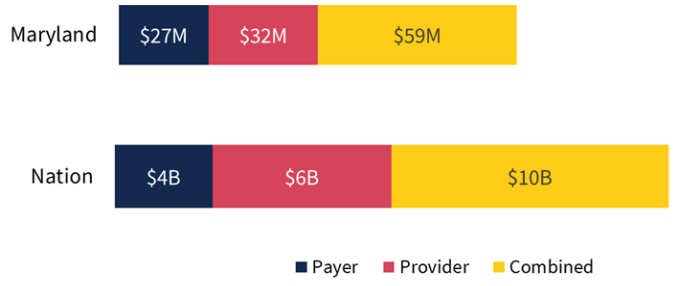
[11] These align with reasons reported by providers nationally. More information available at www.availity.com/blog/2018/june/infographic---4-reasons-why-providers-submit-paper-claims.
[12] Availity. *Infographic - 4 Reasons Why Providers Submit Paper Claims*, June 2018. Available at: www.availity.com/Blog/2018/June/Infographic---4-Reasons-Why-Providers-Submit-Paper-Claims.
[13] There is currently no federally mandated format for electronic claim attachments. Some payers enable submission through a portal; however, this is not universally available and limited to certain situations. More information available at: www.medpagetoday.com/practicemanagement/reimbursement/81834.
[14] Some examples of modifiers are 22, when a provider goes above and beyond the typical framework of a typical procedure, 76, for a repeat procedure of services by the same physician which is appended to the procedure report, and 78, an unplanned return to the operating or procedure room following an initial procedure by the same physician. More information available at: www.codingahead.com/list-of-modifiers-html/.

## EDI Activity and Savings

COMAR 10.25.09, *Requirements for Payers to Designate Electronic Health Networks*, requires payers operating in Maryland with an annual premium volume exceeding $1 million to report census information to MHCC. This helps MHCC monitor and enhance providers and payers use of administrative technology. The share of electronic medical claims is high in Maryland and the nation; trends remain relatively stable year-over-year (Table 1).[15] The annual impact of EDI on payers and providers results in an average savings of nearly $59 million and $10 billion in Maryland[16] and the nation[17] respectively (Figure 1).

| Table 1. Maryland EDI by Payer and Overall – Medical Claims | |
|---|---|
| Payer | % EDI[18] |
| Aetna | 95.8 |
| CareFirst | 97.4 |
| Cigna | 97.7 |
| Kaiser | 88.0 |
| UnitedHealthcare | 94.5 |
| Total Commercial | 97.2 |
| Medicaid | 98.9 |
| Medicare | 99.5 |
| Total Government | 99.2 |
| Total Commercial + Government | 98.5 |
| Nation[19] | 96.0 |

Figure 1. Estimated Cost Avoided Attributed to EDI
Annual Average 2019-2020




[15] The top five commercial payers account for nearly 98 percent of private payer transaction volume in the State.
[16] Savings for Maryland reflects the average savings from 2019 to 2020. The calculation uses estimated electronic claims volume multiplied by the difference in cost between processing a paper claim and an electronic claim: $1.10 for payers; $1.33 for providers; and $2.43 for payers and providers (total) combined. More information about cost estimates available at: www.caqh.org/sites/default/files/explorations/index/2020-caqh-index.pdf.
[17] National data reflects the average savings from 2019 and 2020 from the *2020 CAQH Index Closing the Gap: The Industry Continues to Improve, But Opportunities for Automation Remain*, 2021. More information is available at: www.caqh.org/sites/default/files/explorations/index/2020-caqh-index.pdf
[18] This is the combination of 837P – Professional and 837-I – Institutional transactions reported to MHCC in 2020.
[19] See n. 7, *Supra*.

## Conclusion

Electronic claim submissions have almost eliminated the need for costly manual processes, reducing provider burden. The stable trend in electronic claim submissions suggest that Maryland and the nation are approaching full adoption of EDI; any future changes in the EDI rate will be nominal. Automation of administrative workflows and costs avoided benefit the health care industry as new business needs and technology emerge, and health insurance benefit and payment models evolve. [20]

## Acknowledgments

The MHCC appreciates the reporting effort by payers and practices for their contributions to this report.

[20] Ibid.