MARYLAND
Health Care
Commission

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Electronic Data Interchange

A Snapshot of Maryland and the Nation

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Overview

Electronic Data Interchange (EDI) is widely used in all industries to facilitate the structured exchange of electronic information through standards.[1] The Health Insurance Portability and Accountability Act of 1996 (HIPAA) required the U.S. Department of Health & Human Services to adopt national standards for electronic health care transactions (transactions).[2] A key goal was to simplify the business of health care (Administrative Simplification[3]) by creating a more efficient health care system with reduced administrative overhead and increased accessibility and portability of health care data and documents.[4] Select payers[5, 6] operating in Maryland with premiums exceeding $1 million annually are required to report census information on transactions to the Maryland Health Care Commission (MHCC).

The COVID-19 pandemic was an unprecedented event resulting in a decrease in the overall volume of most transactions. The decrease was more evident during the early months of 2020 (January – May) as compared to the same time period in 2019. Health care claim submissions decreased by about nine percent and then stabilized as the year progressed.[7] Changes in telehealth policies and increased use of telehealth services helped offset the decline in claims volume by making access to care easier.[8]

Electronic Claims

Despite a shift in claims volume, the proportion of electronic claims continues to increase (See Tables 1 and 2). Electronic claims are the most common transaction in health care. A very small percentage of health care claims are submitted using paper (Maryland: <2 percent; Nation: 3 percent). Submission of paper for dental claims is higher than health care claims; however, its use continues to decline as well (Maryland: <16 percent; Nation: 16 percent).[9] EDI among government payers slightly exceeds private payers in part due to requirements for providers to submit electronic claims, except in limited situations (e.g., submitting less than an average of 10 claims per month during a calendar year).[10] Adjudication policies for private payers vary. Providers often submit paper claims to correct or appeal a denied claim or when claims require attachments (e.g., x-rays).[11, 12]

Table 1: Maryland EDI by Payer and Overall Health Care Claims 2019-2021			
Payer Name	**% 2019**	**% 2020**	**% 2021**
Aetna	95.3	95.8	96.6
CareFirst BlueCross BlueShield	97.0	97.4	97.7
Cigna	97.4	97.7	97.7
Kaiser	86.5	95.6	93.4
UnitedHealthcare	93.9	94.1	95.0
Total Commercial	96.5	97.0	97.2
Medicaid	98.6	98.9	99.2
Medicare	99.4	99.5	99.7
Total Government	98.9	99.2	99.4
Total Commercial + Government	98.0	98.4	98.6
Total Nation	96	96	97

Table 2: Maryland EDI by Payer and Overall Dental Claims 2019-2021			
Payer Name	**% 2019**	**% 2020**	**% 2021**
Aetna	74.1	75.6	78.9
CareFirst BlueCross BlueShield	83.7	82.2	86.8
Cigna	77.1	78.2	80.9
Delta Dental	75.8	77.7	79.5
United Concordia	77.3	79.5	82.7
Total Commercial	78.7	79.5	82.7
Government (Medicaid)	92.0	95.8	97.2
Total Commercial + Government	81.7	82.3	85.5
Total Nation	80	82	84

EDI minimizes time-consuming processes enabling providers and payers to process and track claims more efficiently.[13] The cost savings opportunity[14] for submitting an electronic claim is $2.92 for providers[15] and $1.01 for payers for health care claims and $2.29 for providers[16] and $0.34 for payers for dental claims.[17, 18, 19, 20] This equates to considerable cost avoided for providers and payers (Figures 1 and 2).[21] In Maryland, additional costs could be avoided with just a one hundredth of a percent (0.01) increase in electronic claims (approximately $600,000 for health care and $5,000 for dental).

Figure 1: Estimated Cost Avoided for Health Care Claims, 2021

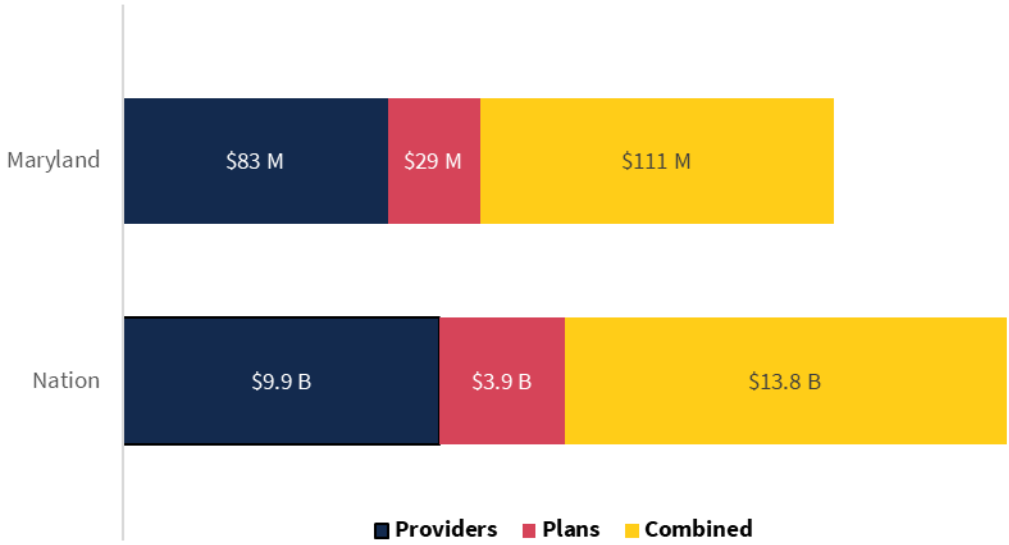
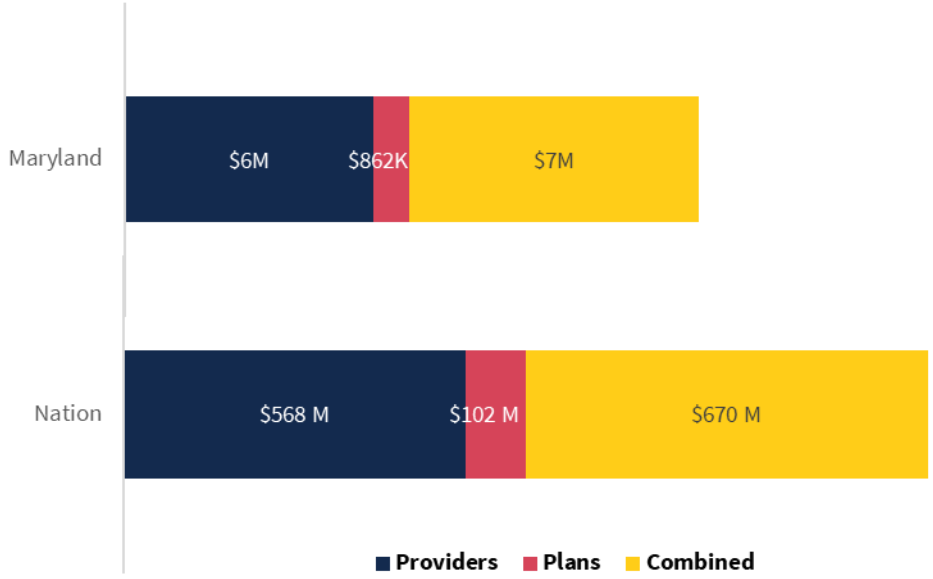


Figure 2: Estimated Cost Avoided for Dental Claims, 2021



Conclusion

Reducing administrative burden in health care must account for evolving policies, requirements, and care delivery models.[22] Cost associated with the use of EDI varies for health care and dental. The high proportion of electronic health care claims suggests this transaction is reaching near full adoption and growth will continue to be nominal. Opportunity exists to increase claims transaction volume in dental to realize greater cost avoided.

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[1] EDI standards define the location and order of information in a document format. With this automated capability, data can be shared rapidly instead of over the hours, days or weeks required when using paper documents or other methods. More information is available at: www.ibm.com/topics/edi-electronic-data-interchange#:~:text=EDI%20standards%20define%20the%20location,paper%20documents%20or%20other%20methods.

[2] These adopted transactions include: health care claim X12N 837 transaction; health care claim payment advice X12N 835 transaction; health care claim status request/notification X12N 276/277 transaction; eligibility, coverage, or benefit inquiry/information X12N 270/271 transaction; benefit enrollment and maintenance X12N 834 transaction; health care service review information X12N 278 transaction; and payment order/remittance advice X12N 820 transaction. More information is available at: www.cms.gov/files/document/health-care-transactions-basics.pdf.

[3] Transactions are one of four types of standards referred to as EDI. More information is available at: www.cms.gov/Regulations-and-Guidance/Administrative-Simplification/HIPAA-ACA/Downloads/AboutAdminSimpFactSheet20171017.pdf.
across the health care system by streamlining paperwork.

[4] CMS.gov. *Adopted Standards and Operating Rules*. Available at: www.cms.gov/Regulations-and-Guidance/Administrative-Simplification/HIPAA-ACA/AdoptedStandardsandOperatingRules

[5] As defined by COMAR 10.25.09.02(11).

[6] Medicare and Medicaid voluntarily report information to MHCC.

[7] CAQH Explorations. Healthcare Utilization During a Pandemic: How COVID-19 Impacted Administrative Transactions, May 2021. Available at: www.caqh.org/sites/default/files/covid-issue-brief.pdf

[8] CAQH. *2021 CAQH Index Working Together: Advances in Automation During Unprecedented Times*, 2022. Available at: www.caqh.org/sites/default/files/explorations/index/2021-caqh-index.pdf

[9] Ibid.

[10] A full list of exception criteria is available at: www.cms.gov/Medicare/Billing/ElectronicBillingEDITrans/ASCASelfAssessment

[11] Information was collected from Maryland providers during interviews. More information is available at: https://mhcc.maryland.gov/mhcc/pages/hit/hit_edi/documents/EDI_Information_Brf_20211027.pdf

[12] 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 is available at: www.medpagetoday.com/practicemanagement/reimbursement/81834.

[13] American Medical Association. *The benefits of electronic claims submission— improve practice efficiencies*, 2013. Available at: www.ama-assn.org/media/11106/download.

[14] CAQH defines cost savings opportunity as the cost savings that could be achieved by switching the remaining partially electronic and fully manual transactions to fully electronic transactions.

[15] Provider claim submission cost per transaction is $3.96 for manual and $1.04 for electronic.

[16] Provider claim submission cost per transaction is $3.35 for manual and $1.06 for electronic.

[17] Payer claim submission cost per transaction is $0.44 for manual and $0.10 for electronic.

[18] The calculation uses estimated electronic claims volume multiplied by the difference in cost between processing a paper claim and an electronic claim. More information about cost estimates is available at: www.caqh.org/sites/default/files/explorations/index/2021-caqh-index.pdf.

[19] Payer claim submission cost per transaction is $1.10 for manual and $0.09 for electronic.

[20] See n. 8, *Supra.*

[21] CAQH defines cost avoided as the amount saved by not conducting transactions using partially electronic or fully manual modes.

[22] See n. 8, *Supra.*