# 2020 CAQH INDEX®

## Closing the Gap: The Industry Continues to Improve, But Opportunities for Automation Remain

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# 2020 CAQH Index

## Closing the Gap: The Industry Continues to Improve, But Opportunities for Automation Remain

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CAQH, a non-profit alliance, is the leader in creating shared initiatives to streamline the business of healthcare. Through collaboration and innovation, CAQH accelerates the transformation of business processes, delivering value to providers, patients and health plans.

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# Executive Summary

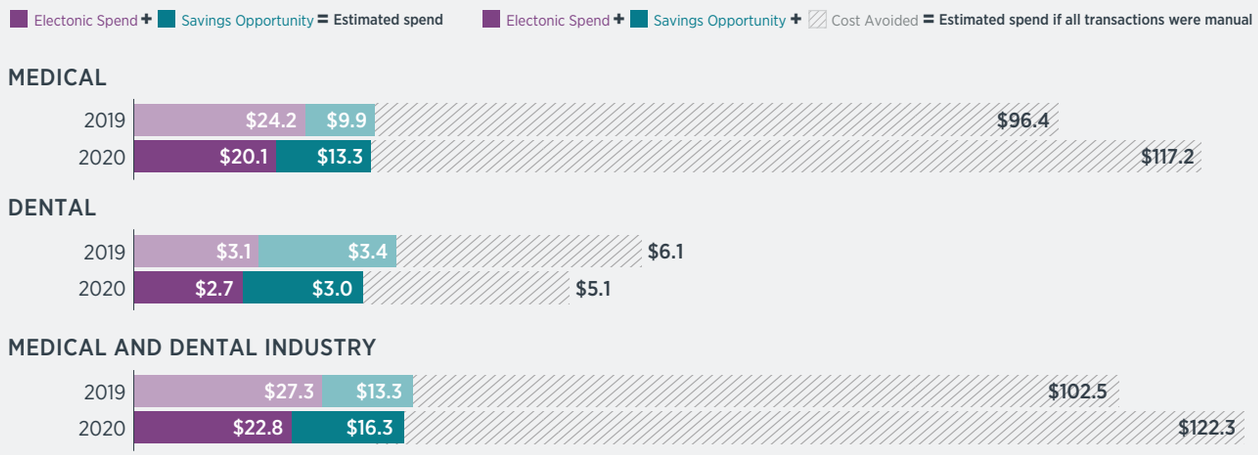
Millions of business transactions occur every day between healthcare providers and plans. These transactions, while necessary, are often associated with costly, time-consuming administrative processes. Reducing the burden associated with administrative tasks and simplifying the workflow has been an industry focus for a number of years as healthcare spending in the United States remains the highest among developed countries.[1,2,3]

Data from the 2020 CAQH Index found that, of the $372 billion spent on administrative complexity in the United States healthcare system,[4] $39 billion, or 10 percent, is spent conducting administrative transactions tracked by the CAQH Index. Of the $39 billion, the industry can save $16.3 billion, or 42 percent of existing annual spend, by transitioning to fully electronic transactions (Figure 1). While the industry has already avoided $122 billion annually by automating administrative transactions, meaningful opportunities for additional savings remain for both the medical and dental industries.

This is the eighth annual report produced by CAQH to measure national progress in reducing the costs and burden associated with administrative transactions in the healthcare industry. The CAQH Index tracks the adoption of Health Insurance Portability and Accountability Act (HIPAA) mandated transactions, as well as other administrative transactions related to verifying insurance coverage, obtaining authorization for care, submitting a claim and supplemental information, and sending and receiving payments.

The CAQH Index also estimates the annual volume, costs and time needed to complete these transactions. Data is reported by the mode of transmission for the medical and dental industries: electronically (generally the HIPAA standard), manually (phone, fax, mail, or email) and partially electronically (web portals or interactive voice response (IVR)).

**Figure 1: Estimated Medical and Dental Spend and Savings, 2019-2020 CAQH Index (in billions)**




Note: May not be drawn to scale.

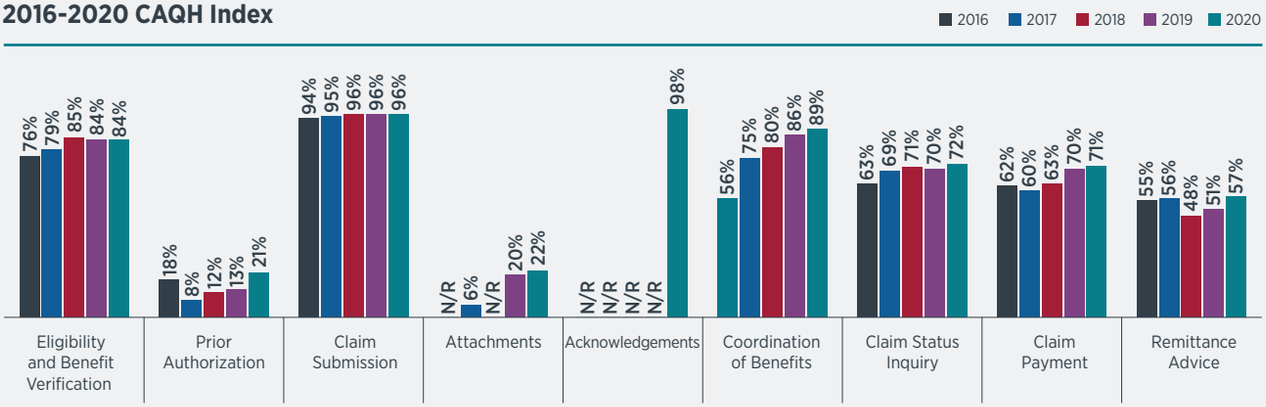
1 Laura Tollen, Elizabeth Keating, Alan Weil, "How Administrative Spending Contributes To Excess US Health Spending," Health Affairs, February 20, 2020, https://www.healthaffairs.org/do/10.1377/hblog20200218.375060/full/.

2 Abigail Abrams, "The U.S. Spends $2,500 Per Person on Health Care Administrative Costs. Canada Spends $550. Here's Why," Time, January 6, 2020, https://time.com/5759972/health-care-administrative-costs/.

3 David Cutler, "The World's Costliest Health Care...and what America might do about it," Harvard Magazine, May-June 2020, https://www.harvardmagazine.com/2020/05/feature-forum-costliest-health-care.

4 "Projected," Health Expenditure Data, CMS website, last modified April 15, 2020, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected. Healthcare administrative complexities include all national health expenditures (NHE), less investment (research, structures and equipment) and public health outlays by federal and state governments.

**Figure 2: Medical Plan Adoption of Fully Electronic Administrative Transactions, 2016-2020 CAQH Index**



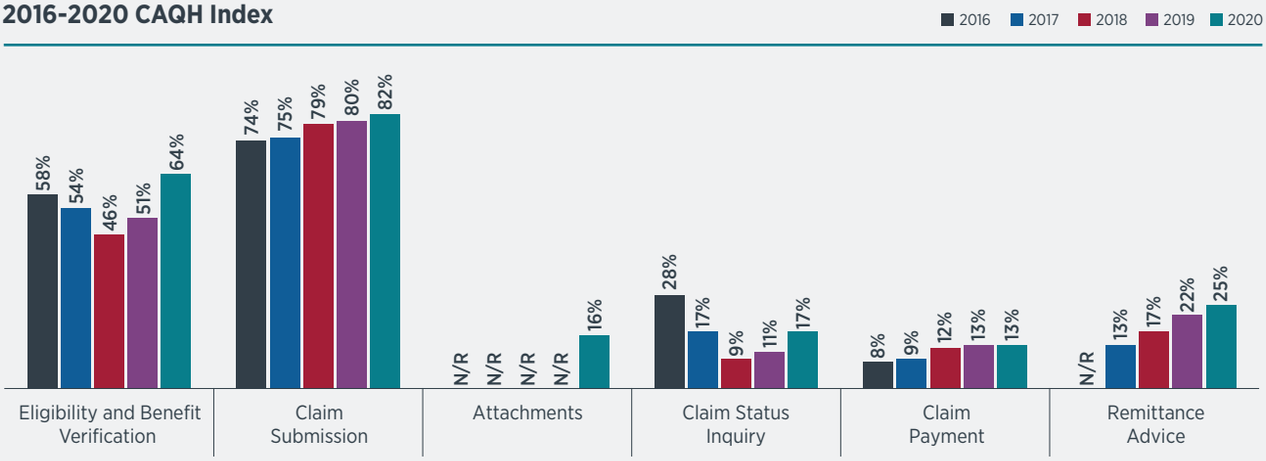

N/R = Not Reported

**Adoption of Electronic Transactions Improved or Remained Stable for All Medical and Dental Transactions:** For medical plans, adoption increased across all transactions, except for claim submission and eligibility and benefit verification which remained stable (Figure 2). While prior authorization continues to have the lowest adoption rate among the medical transactions studied, electronic adoption increased by eight percentage points — the highest increase reported. Remittance advice experienced the second-highest adoption increase at six percentage points.

Dental plans saw an increase in electronic adoption for all transactions reported, except for claim payment which stayed at 13 percent electronic (Figure 3). The increase in electronic adoption was highest for eligibility and benefit verification at 13 percentage points, followed by claim status inquiry at six percentage points. Claim payment continues to have the lowest electronic adoption rate among the dental transactions.

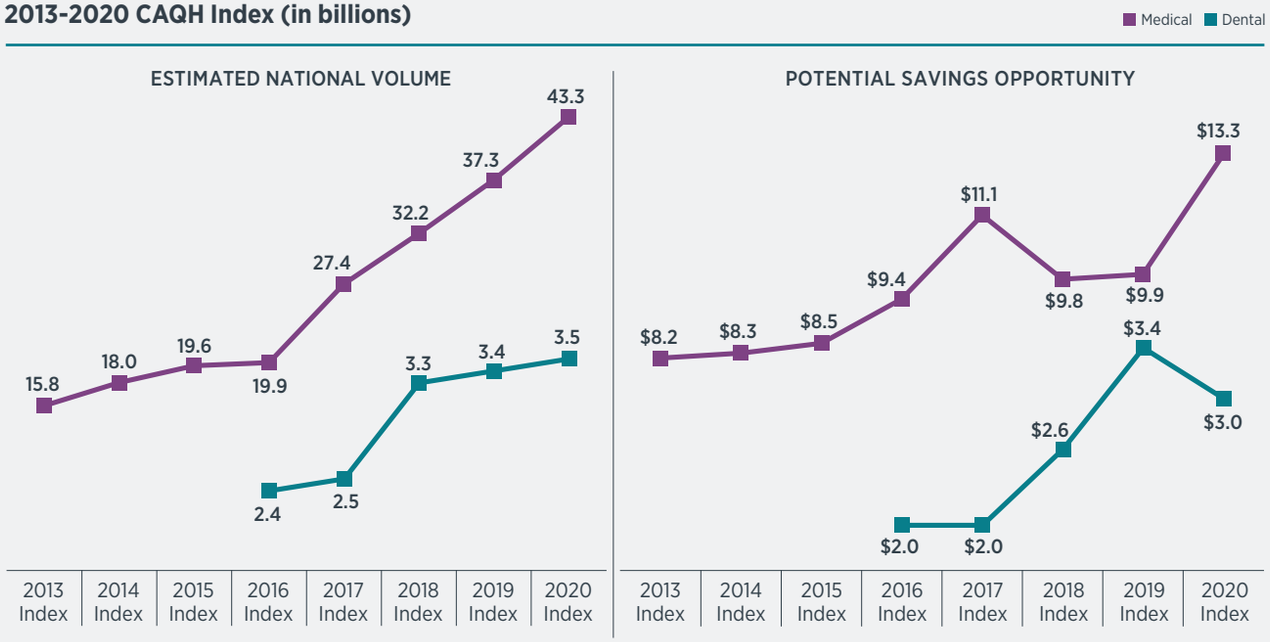
**Overall Volume Increased for the Medical and Dental Industries Led by Strong Gains in Electronic Transaction Volume:** Overall transaction volume increased for both the medical and dental industries (Figure 4). The number of transactions conducted by the medical industry increased by 16 percent, while the number of transactions conducted by the dental industry increased by one percent. The increase in medical volume was driven by a gain in electronic transaction volume of 22 percent.

**Figure 3: Dental Plan Adoption of Fully Electronic Administrative Transactions, 2016-2020 CAQH Index**




N/R = Not Reported

**Figure 4: Industry Estimated National Volume and Potential Savings Opportunity, 2013-2020 CAQH Index (in billions)**




Note: From year to year reported transactions may change due to low volume collected.
May not be drawn to scale.

Together, partially electronic and manual volumes decreased by three percent for the medical industry.

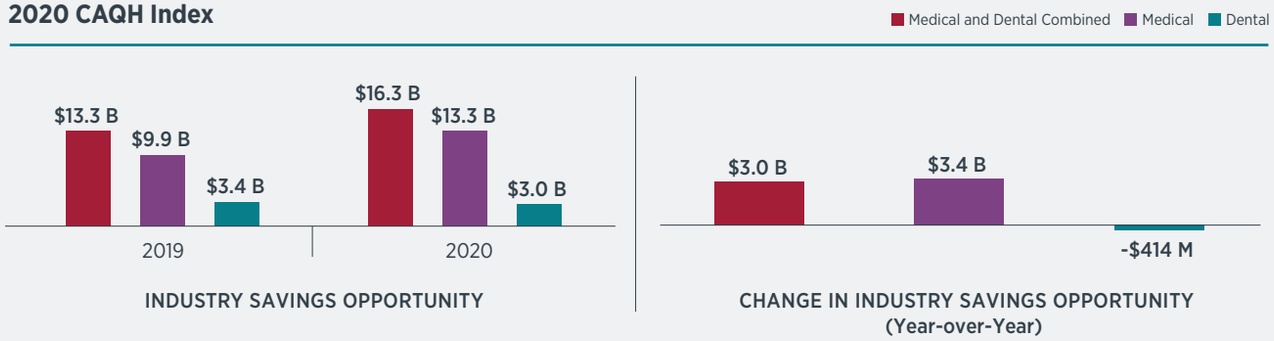
Although total volume for the dental industry stayed relatively stable, electronic transaction volume increased by 15 percent. Manual volume decreased by four percent for the dental industry and now accounts for 42 percent of all dental transaction volume. Electronic volume for the dental industry represents 46 percent of all transaction volume — the first time that electronic volume has surpassed manual volume for the dental industry in the history of the CAQH Index. This is encouraging for the dental industry as efforts continue to promote the use of electronic transactions to help reduce administrative burden.

**Industry Spending on Administrative Transactions Decreased as the Cost of Electronic Transactions Declined:** While the industry experienced an overall increase in transaction volume, industry spending associated with conducting administrative transactions decreased by four percent from the previous report ($39 billion compared to $40.6 billion). The decrease was driven by a 13 percent drop in dental spending and a two percent drop in medical spending associated with higher electronic adoption and lower costs reported for most electronic transactions compared to the previous report. Among the transactions, eligibility and benefit verification accounted for the largest portion of total medical spending (47 percent). For the dental industry, eligibility and benefit verification, along with remittance advice, accounted for the largest portion of total dental spending (24 percent each).

Of the total industry spend, provider spending accounts for the vast majority of expenses. For the medical industry, medical providers account for 94 percent of all spend. Similarly, dental providers account for 93 percent of all dental industry spend.

**Savings Opportunities Increased for the Medical Industry as the Gap in Costs for Electronic vs Partially Electronic and Manual Transactions Increased:** Although spending declined for the medical industry, the potential savings opportunity increased 35 percent from $9.9 billion to $13.3 billion (Figure 5). The increase in the overall cost savings opportunity for the medical industry is due to higher costs reported for most manual and partially electronic transactions, combined with lower reported costs for most electronic transactions. Compared to the previous report, there is a larger gap between the cost for electronic transactions and the cost for partially electronic and manual transactions, leading to a greater opportunity for savings

**Figure 5: Industry Savings Opportunity and Year-Over-Year Change, 2020 CAQH Index**




Note: From year to year reported transactions may change due to low volume collected.

as electronic transactions have become more efficient and partially electronic and manual processing methods have become more expensive. Eligibility and benefit verification remains the greatest cost savings opportunity for the medical industry, accounting for 51 percent of the total savings opportunity.

In comparison, the potential savings opportunity for the dental industry decreased 12 percent, from $3.4 to $3.0 billion. The decrease in the potential savings opportunity for the dental industry can be attributed to greater adoption of electronic transactions resulting in a lower volume of more expensive partially electronic and manual transaction volumes from which to achieve future savings. Claim status inquiry and eligibility and benefit verification represent the greatest cost savings opportunities for the dental industry, accounting for 27 and 26 percent of the total savings opportunity, respectively.

**Industry Continues to Avoid Costs Through Automation:** By automating administrative transactions, the medical and dental industries combined have avoided spending more than $122 billion annually, an increase of 19 percent from the previous year as a greater share of transactions have become fully electronic. The largest annual cost savings for both the medical and dental industries continues to be for eligibility and benefit verification. Through automation, the medical industry has avoided spending $85.6 billion on eligibility and benefit checks while the dental industry has avoided $2.7 billion annually.

While the industry continues to make progress automating administrative tasks, opportunities remain. Although electronic transactions have become more efficient, transactions that continue to be processed through partially electronic web portals and manual methods are becoming more expensive and time consuming. To address these automation gaps, standards and operating rules need to be updated more frequently to adapt to changing business needs. When a standard does not adequately address a business need, manual methods or multiple non-standard technology approaches are deployed resulting in higher costs and more staff time, particularly for providers. As business needs change and technology advances, the industry must work together to align on common expectations for data exchange to keep administrative expenses in check.

## Impact of COVID-19 on the Healthcare Industry

While the 2020 CAQH Index collected data from health plans and providers through the 2019 calendar year, subsequent CAQH Index reports will include the impact of COVID-19 on the mode, volume and cost of healthcare administrative transactions. Based on initial survey responses, CAQH Index respondents have reported that the volume of administrative transactions changed significantly in 2020. In some cases, transaction volume decreased by over 20 percent compared to the same timeframe in 2019. A forthcoming issue brief will shed more light on the changes in administrative transactions observed during the early months of the COVID-19 pandemic.

# The Administrative Workflow

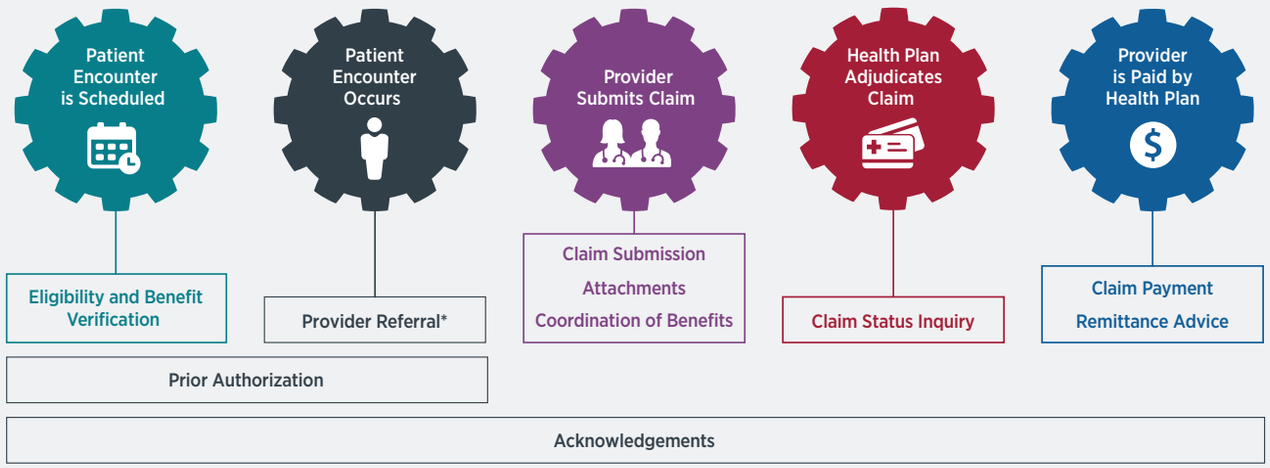
The healthcare administrative workflow starts with a patient scheduling an encounter and ends with a provider receiving payment for services (Figure 6). Understanding this workflow and the costs associated with conducting these transactions allows the industry to identify opportunities for cost savings and to streamline processes. The CAQH Index reports on specific healthcare administrative transactions along the workflow for providers and health plans in both the medical and dental industries. This includes mode of transmission (fully electronic, partially electronic and manual), volume, cost and time to process each transaction. This information is used to track the industry's progress towards automation and identify opportunities to create a more efficient workflow.

Tables 1 and 2 present the average cost per transaction by mode and the savings opportunities associated with moving to fully electronic transactions for plans and providers in the medical and dental industries. By conducting all eight transactions fully electronically rather than manual, the medical industry could save $43.39 for a single patient encounter, $29.84 for providers and $13.55 for plans. The dental industry could save $27.35 for a single encounter, $20.30 for providers and $7.05 for plans, if all five dental transactions were conducted fully electronically as opposed to manually.

In the medical industry, the greatest per transaction savings opportunity associated with moving from a manual to a fully electronic transaction is for claim status inquiry ($11.71), followed by prior authorization ($9.64) and eligibility and benefit verification ($8.64). For the dental industry, claim status inquiry ($10.92) and eligibility and benefit verification ($8.75) have the greatest per transaction savings opportunities.

As web portals continue to be used to exchange information between health plans and providers, it is important to understand the savings associated with conducting a transaction using the fully electronic HIPAA-mandated standard versus a portal. While web portal transactions typically cost less than manual transactions, provider time and cost savings occur by moving from partially electronic transactions or portals to fully electronic transactions. Medical providers could save as much as $8.81 per transaction by switching all partially electronic transactions to fully electronic, while dental

**Figure 6: The Administrative Workflow**




Note: This diagram illustrates the administrative workflow in its simplest form. In practice, some transactions may occur multiple times or in multiple steps and be triggered by other events.
*Due to a low volume of data collected, the 2020 CAQH Index was unable to calculate benchmarks.

*For the medical and dental industries, eligibility and benefit verification, claim status inquiry and remittance advice include partially electronic transactions. Additionally, for the medical industry, prior authorization includes partially electronic transactions.

providers could save as much as $6.48 per transaction by converting all portal transactions to fully electronic.

For the medical industry, the largest single per transaction savings opportunity associated with converting partially electronic transactions to fully electronic is for prior authorization ($3.43). For dental providers, the largest per transaction savings opportunity associated with moving from partially electronic web portals to fully electronic transactions is for claim status inquiry ($2.51).

In addition to costs, tracking transaction volume can help identify opportunities for administrative simplification. For the medical industry, eligibility and benefit verification continues to have the highest volume among the transactions, accounting for almost half of all

**Table 1: Average Cost and Savings Opportunity per Transaction by Mode, Medical, 2020 CAQH Index**

| Transaction | Mode | Plan Cost | Provider Cost | Industry Cost | Plan Savings Opportunity | Provider Savings Opportunity | Industry Savings Opportunity |
|---|---|---|---|---|---|---|---|
| Eligibility and Benefit Verification | Manual | $3.66 | $5.83 | $9.49 | $3.63 | $5.01 | $8.64 |
| | Partial | $0.03 | $2.42 | $2.45 | $0.00 | $1.60 | $1.60 |
| | Electronic | $0.03 | $0.82 | $0.85 | | | |
| Prior Authorization | Manual | $3.14 | $10.26 | $13.40 | $3.02 | $6.62 | $9.64 |
| | Partial | $0.12 | $7.07 | $7.19 | $0.00 | $3.43 | $3.43 |
| | Electronic | $0.12 | $3.64 | $3.76 | | | |
| Claim Submission | Manual | $1.18 | $2.52 | $3.70 | $1.10 | $1.33 | $2.43 |
| | Electronic | $0.08 | $1.19 | $1.27 | | | |
| Attachments | Manual | $0.66 | $5.10 | $5.76 | $0.49 | $3.60 | $4.09 |
| | Electronic | $0.17 | $1.50 | $1.67 | | | |
| Coordination of Benefits | Manual | $1.26 | N/A | $1.26 | $1.05 | N/A | $1.05 |
| | Partial | $0.21 | N/A | $0.21 | $0.00 | N/A | $0.00 |
| | Electronic | $0.21 | N/A | $0.21 | | | |
| Claim Status Inquiry | Manual | $3.48 | $9.37 | $12.85 | $3.44 | $8.27 | $11.71 |
| | Partial | $0.04 | $3.29 | $3.33 | $0.00 | $2.19 | $2.19 |
| | Electronic | $0.04 | $1.10 | $1.14 | | | |
| Claim Payment | Manual | $0.57 | $3.18 | $3.75 | $0.49 | $1.99 | $2.48 |
| | Electronic | $0.08 | $1.19 | $1.27 | | | |
| Remittance Advice | Manual | $0.40 | $3.96 | $4.36 | $0.33 | $3.02 | $3.35 |
| | Partial | $0.07 | $2.53 | $2.60 | $0.00 | $1.59 | $1.59 |
| | Electronic | $0.07 | $0.94 | $1.01 | | | |

N/A = Not Applicable

Note: Costs include the labor time required to conduct the transaction, not the time and cost associated with gathering information for the transaction and follow-up. Does not include system costs. All participants were asked to report cost for each transaction by the three modes of completion (manual, partial electronic, electronic). For some transactions, partial costs were not reported.

transaction volume reported (Table 3). In combination with the per transaction cost savings opportunity, eligibility and benefit verification accounts for the majority of the total industry savings opportunity (51 percent). Remittance advice and claim status inquiry represent the second and third highest savings opportunity areas, accounting for 19 percent and 17 percent of the total savings potential, respectively.

Compared to the medical industry, in which one transaction accounts for the majority of the overall potential savings opportunity, opportunities for savings in the dental industry span equally across multiple transactions. Claim status inquiry has the highest potential savings opportunity, representing 27 percent of the total industry savings opportunity. This is followed by eligibility and benefit verification and remittance advice accounting for 26 and 23 percent of the total savings potential, respectively (Table 4).

Additional detailed information on trends in adoption, volume, cost, spend and processing time for transactions along the administrative workflow are included in this report. By benchmarking progress, the healthcare industry can more easily identify barriers that may be hindering administrative simplification and focus efforts on the opportunities to reduce administrative burden and drive further automation.

**Table 2: Average Cost and Savings Opportunity per Transaction by Mode, Dental, 2020 CAQH Index**

| Transaction | Mode | Plan Cost | Provider Cost | Industry Cost | Plan Savings Opportunity | Provider Savings Opportunity | Industry Savings Opportunity |
|---|---|---|---|---|---|---|---|
| Eligibility and Benefit Verification | Manual | $3.30 | $6.96 | $10.26 | $3.27 | $5.48 | $8.75 |
| | Partial | $0.03 | $3.86 | $3.89 | $0.00 | $2.38 | $2.38 |
| | Electronic | $0.03 | $1.48 | $1.51 | | | |
| Claim Submission | Manual | $0.44 | $3.63 | $4.07 | $0.35 | $2.31 | $2.66 |
| | Electronic | $0.09 | $1.32 | $1.41 | | | |
| Claim Status Inquiry | Manual | $3.30 | $9.29 | $12.59 | $3.27 | $7.65 | $10.92 |
| | Partial | $0.03 | $4.15 | $4.18 | $0.00 | $2.51 | $2.51 |
| | Electronic | $0.03 | $1.64 | $1.67 | | | |
| Claim Payment | Manual | $0.12 | $3.37 | $3.49 | $0.11 | $1.80 | $1.91 |
| | Electronic | $0.01 | $1.57 | $1.58 | | | |
| Remittance Advice | Manual | $0.07 | $4.80 | $4.87 | $0.05 | $3.06 | $3.11 |
| | Partial | $0.02 | $3.33 | $3.35 | $0.00 | $1.59 | $1.59 |
| | Electronic | $0.02 | $1.74 | $1.76 | | | |

Note: Costs include the labor time required to conduct the transaction, not the time and cost associated with gathering information for the transaction and follow-up. Does not include system costs. All participants were asked to report cost for each transaction by the three modes of completion (manual, partial electronic, electronic). For some transactions, partial costs were not reported.

**Table 3: Estimated National Volume and Savings Opportunity by Mode, Medical, 2020 CAQH Index (in millions)**

| Transaction | Mode | Plan National Volume | Provider National Volume | Plan National Savings Opportunity | Provider National Savings Opportunity | Industry National Savings Opportunity |
|---|---|---|---|---|---|---|
| | | (in millions) | | (in millions $) | | |
| Eligibility and Benefit Verification | Manual | 80 | 751 | $291 | $6,453 | $6,744 |
| | Partial | 1,587 | 1,675 | | | |
| | Electronic | 9,021 | 8,262 | | | |
| Prior Authorization | Manual | 31 | 31 | $95 | $322 | $417 |
| | Partial | 42 | 34 | | | |
| | Electronic | 19 | 28 | | | |
| Claim Submission | Manual | 158 | 263 | $173 | $349 | $522 |
| | Electronic | 3,767 | 3,661 | | | |
| Attachments | Manual | 99 | 91 | $49 | $328 | $377 |
| | Electronic | 29 | 37 | | | |
| Acknowledgements | Manual | * | N/R | N/R | N/R | N/R |
| | Partial | 57 | N/R | | | |
| | Electronic | 3,316 | N/R | | | |
| Coordination of Benefits | Manual | 19 | N/A | $19 | N/A | $19 |
| | Partial | * | N/A | | | |
| | Electronic | 146 | N/A | | | |
| Claim Status Inquiry | Manual | 77 | 161 | $263 | $2,056 | $2,319 |
| | Partial | 281 | 330 | | | |
| | Electronic | 919 | 784 | | | |
| Claim Payment | Manual | 164 | 175 | $79 | $347 | $426 |
| | Electronic | 400 | 389 | | | |
| Remittance Advice | Manual | 127 | 367 | $43 | $2,454 | $2,497 |
| | Partial | 1,253 | 844 | | | |
| | Electronic | 1,815 | 1,984 | | | |
| **Transaction Total** | **Manual** | **755** | **1,839** | **$1,012** | **$12,309** | **$13,321** |
| | **Partial** | **3,220** | **2,883** | | | |
| | **Electronic** | **19,432** | **15,145** | | | |

*Transaction volume is less than one million.
N/R = Not Reported; N/A = Not Applicable
Note: Costs include the labor time required to conduct the transaction, not the time and cost associated with gathering information for the transaction and follow-up. Does not include system costs. All participants were asked to report cost for each transaction by the three modes of completion (manual, partial electronic, electronic). For some transactions, partial costs were not reported.

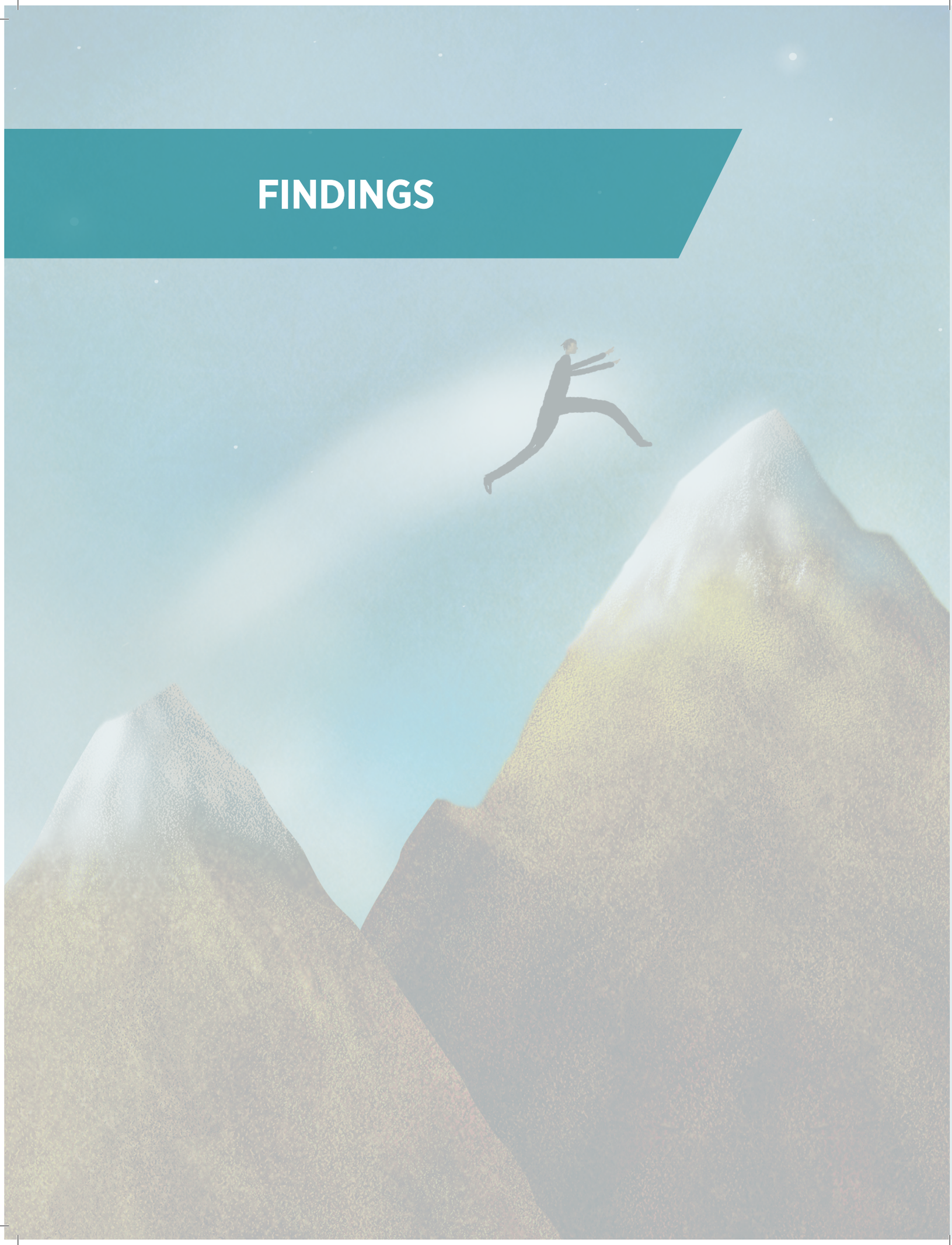
**Table 4: Estimated National Volume and Savings Opportunity by Mode, Dental, 2020 CAQH Index (in millions)**

| Transaction | Mode | Plan National Volume | Provider National Volume | Plan National Savings Opportunity | Provider National Savings Opportunity | Industry National Savings Opportunity |
|---|---|---|---|---|---|---|
| | | (in millions) | | (in millions $) | | |
| Eligibility and Benefit Verification | Manual | 29 | 65 | $95 | $669 | $764 |
| | Partial | 111 | 132 | | | |
| | Electronic | 251 | 195 | | | |
| Claim Submission | Manual | 79 | 102 | $28 | $235 | $263 |
| | Electronic | 356 | 333 | | | |
| Attachments | Manual | 33 | N/R | N/R | N/R | N/R |
| | Electronic | 6 | N/R | | | |
| Claim Status Inquiry | Manual | 56 | 64 | $183 | $626 | $809 |
| | Partial | 69 | 56 | | | |
| | Electronic | 25 | 31 | | | |
| Claim Payment | Manual | 312 | 243 | $34 | $438 | $472 |
| | Electronic | 48 | 118 | | | |
| Remittance Advice | Manual | 272 | 190 | $14 | $670 | $684 |
| | Partial | 7 | 55 | | | |
| | Electronic | 95 | 130 | | | |
| **Transaction Total** | **Manual** | **781** | **664** | **$354** | **$2,638** | **$2,992** |
| | **Partial** | **187** | **243** | | | |
| | **Electronic** | **781** | **807** | | | |

N/R = Not Reported

Note: Costs include the labor time required to conduct the transaction, not the time and cost associated with gathering information for the transaction and follow-up. Does not include system costs. All participants were asked to report cost for each transaction by the three modes of completion (manual, partial electronic, electronic). For some transactions, partial costs were not reported.

# FINDINGS

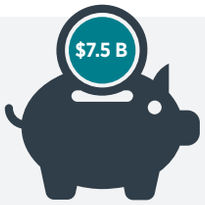


## Eligibility and Benefit Verification

A patient's medical encounter most often begins with a healthcare provider verifying his or her insurance insurance coverage and other specific benefit information, such as applicable copayments, coinsurance and deductible amounts, and any benefit limits. Given that this information may guide providers during the medical encounter by listing treatments and services as well as the patient's financial responsibilities, a patient's eligibility and benefits may be checked often throughout an episode of care.

In the 2019 CAQH Index report, eligibility and benefit verifications represented the highest volume and savings opportunity among all transactions for both the medical and dental industries. While this trend holds for the medical industry in this report, the dental industry experienced a downward trend in volume and potential cost savings alongside an increase in electronic adoption. Opportunities for industry improvement remain as the complexity and variability of benefits and plan designs continue to result in the need for repeated verification checks.

**Electronic Eligibility and Benefit Verification**




**$7.5 Billion in Potential Savings Annually for the Medical and Dental Industries Combined**

**Medical Industry: $6.7 B**

**Dental Industry: $764 M**

### ADOPTION

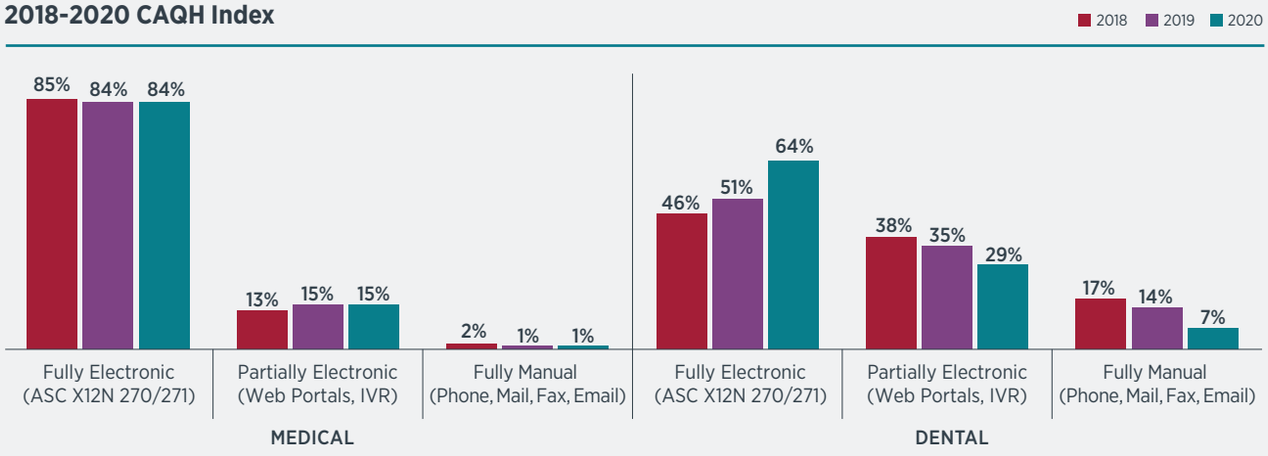
Medical plan adoption of electronic eligibility and benefit verifications remained stable at 84 percent (Figure 7). Partially electronic and manual transactions also remained stable at 15 percent and one percent, respectively.

By comparison, dental plan adoption increased 13 percentage points, the highest increase among the medical and dental transactions studied. Partial and manual transactions decreased six and seven percentage points, respectively. This shift towards automation coincides with the American Dental Association's (ADA) efforts to promote administrative simplification for the verification process through standardization of data elements.[5]

### VOLUME

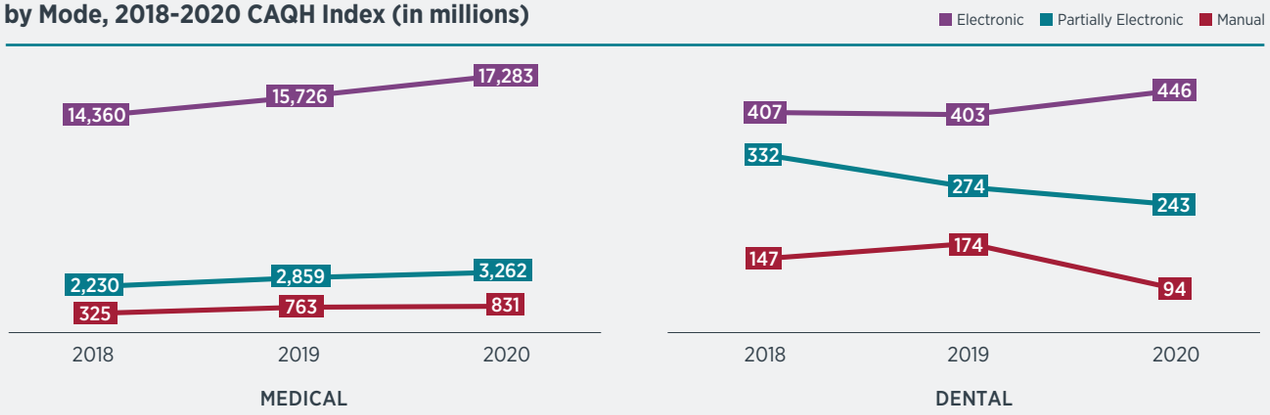
The volume of medical eligibility and benefit verifications rose 10 percent, to 21 billion, and remains

**Figure 7: Medical and Dental Plan Adoption of Eligibility and Benefit Verification, 2018-2020 CAQH Index**




5 "ADA Eligibility Benefits Verification Letter," ADA News Archive, American Dental Association, August 11, 2020, http://www.ada.org/~/media/CPS/Files/Open%20Files/ADA_Eligibility_Benefits_Verification_Letter.pdf.

**Figure 8: Estimated National Volume of Eligibility and Benefit Verification by Mode, 2018-2020 CAQH Index (in millions)**




Note: Data represents plans and providers.

the highest volume among the transactions studied (Figure 8). The number of transactions per member also increased from 30 to 33 transactions and continues to be the highest among the transactions.

In comparison, dental volume declined eight percentage points to 783 million. The decrease in volume is driven by declines in manual and partially electronic transactions. The volume of fully electronic eligibility and benefit verifications increased by 11 percentage points after remaining relatively stable in the 2019 CAQH Index report. Per member volume remained stable at two transactions.

## ESTIMATED SPEND AND SAVINGS POTENTIAL

### Spend

Although the medical industry spent $230 million less annually conducting eligibility and benefit verifications than the previous report, this transaction accounts for the largest portion of the reported medical spending (47 percent) at $15.8 billion (Figure 9). Medical providers represent a significant portion of that total spending (96 percent) compared to medical plans.

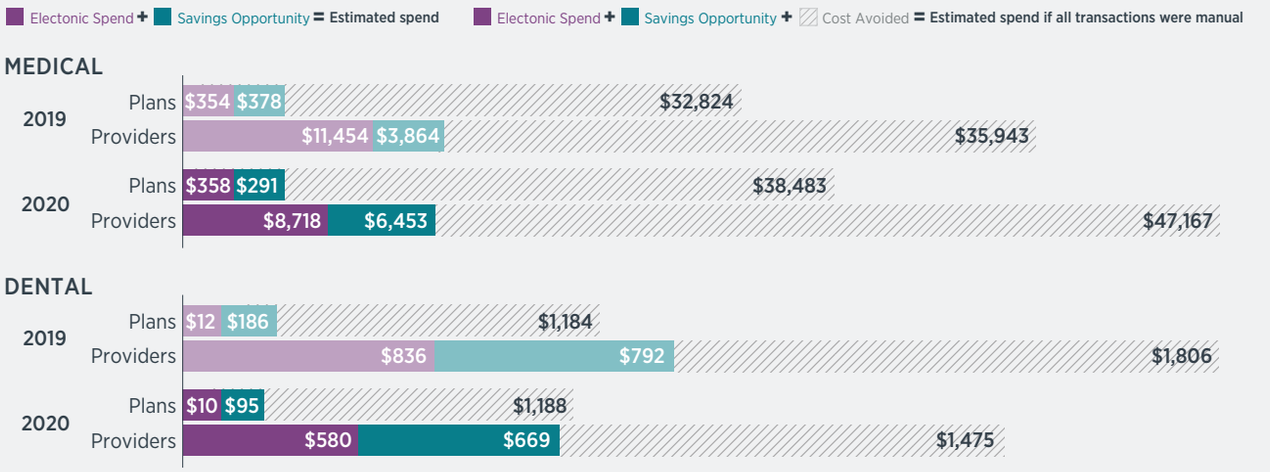
Similarly, while the dental industry spent less on eligibility and benefit verifications, this transaction and remittance advice both accounted for the largest portion of dental spending at 24 percent each ($1.4 billion and $1.3 billion, respectively). Dental providers account for 92 percent of all eligibility and benefit spending at $1.2 billion.

### Savings Potential

Medical plans and providers avoided spending nearly $86 billion annually by moving from manual to electronic eligibility and benefit verifications (Figure 9). This amount represents 73 percent of the total annual costs avoided by the medical industry. Yet, eligibility and benefit verifications remain the top savings opportunity for medical plans and providers at $6.7 billion, including $2.7 billion in savings associated with switching from partially to fully electronic transactions. The rise in the cost savings opportunity is driven by lower reported costs for electronic transactions this year, compared to higher costs reported for manual and partially electronic web portal transactions, plus an increase of 10 percent in transaction volume.

The dental industry continues to make strides towards automation, as seen by the $2.7 billion that has been avoided annually by moving to fully electronic eligibility and benefit transactions. This represents 52 percent of the total annual costs avoided by the dental industry. Additionally, the dental industry cost savings opportunity decreased to $764 million, as the dental industry has become more efficient with a higher adoption of electronic eligibility and benefit transactions. Despite improvements, this transaction

**Figure 9: Eligibility and Benefit Verification: How Much is Spent and Saved With Full Adoption? 2019-2020 CAQH Index (in millions)**




Note: May not be drawn to scale.

remains the second-highest cost savings opportunity for dental providers who, like medical providers, account for a large portion of the dental industry savings opportunity (88 percent). Although conducting an eligibility and benefit check through a web portal may cost less than verifying coverage over the phone, dental providers could save $314 million by switching from portals to fully electronic transactions.

## Time

While the time to complete an eligibility and benefit verification via a web portal or using the electronic HIPAA standard remained stable for medical providers (five and two minutes, respectively), the time needed to conduct these transactions manually increased three minutes to 13 minutes on average. Medical providers reported spending, on average, 11 more minutes conducting an eligibility and benefit check manually compared to electronically.

For dental providers, conducting a manual eligibility and benefit verification, on average, takes 13 minutes to complete compared to seven minutes and three minutes, for partially and fully electronic transactions. Dental providers could save, on average, 10 minutes by conducting an eligibility and verification check electronically. This represents the greatest time savings opportunity for dental providers followed by claim status inquiry. Opportunities for time savings are also found by shifting from portal use to electronic transactions (four minutes).

**Electronic Eligibility and Benefit Verification**

**Potential Average Time Savings (per transaction):**

**Medical Industry: 11 Minutes**

**Dental Industry: 10 Minutes**

## CAQH CORE Eligibility and Benefits Operating Rules to Improve Communication of Provider Attribution

In 2020, CAQH CORE launched a multi-stakeholder Value-based Payment Subgroup of industry leaders representing health plans, providers, vendors, government entities and advisors to develop operating rules to support consistent, electronic exchange of attribution data. Attribution, which is commonly used in value-based payment models, refers to how a patient is assigned to a provider who is then responsible for the quality and cost of his or her care. However, providers often find out too late, and through inconsistent sources, that a patient is attributed to them.

The CAQH CORE Eligibility & Benefits (270/271) Single Patient Attribution Status Data Content Rule identifies and standardizes the minimum data elements and characteristics that a health plan must include when sending an eligibility and benefit response to help the provider identify whether a specific patient is attributed to him or her under a value-based payment contract. In December 2020, the CAQH CORE Board formally approved these Operating Rules. CORE Certification on these rules will be available in 2021.

In addition, in 2021 the CAQH CORE Participating Organizations will review potential updates to the CAQH CORE Eligibility and Benefits (270/271) Data Content Operating Rule to address emerging industry needs, including expansion of service type codes (STC), support for telemedicine, addressing tiered-benefit structures and other areas of industry interest.

*For more information, visit [www.caqh.org/core/eligibility-benefits-operating-rules](www.caqh.org/core/eligibility-benefits-operating-rules).*

## Prior Authorization

Under a patient's medical plan, certain treatments or services may need to be approved by the health plan to qualify for coverage and payment. "Prior authorization" refers to the interaction between a provider and a health plan to obtain authorization for a requested healthcare service such as a diagnostic test or procedure. This process is intended to ensure the care being provided to patients is safe, effective and of high quality, while controlling costs.

Historically, adoption of the HIPAA-mandated prior authorization electronic standard has been low compared to other administrative transactions. Prior authorization has also been one of the most costly and time-consuming transactions to conduct, and is often cited by providers as a major source of administrative burden.[6,7] Given the challenges with prior authorization, a number of public and private sector efforts have focused on ways to reduce the burden for providers and health plans.[8,9,10,11]

In alignment with these efforts, in 2020 CAQH CORE recommended to the National Committee on Vital and Health Statistics (NCVHS) a package of operating rules to support use of the HIPAA-mandated electronic standard transaction for prior authorization, including rules for consistent data content, infrastructure, turnaround timeframes and connectivity methods.[12]


During 2021, industry organizations are encouraged to implement these operating rules to support adoption of the standard electronic prior authorization transaction and reduce the administrative burden associated with manual and partially electronic prior authorizations.[13]

### ADOPTION

Although prior authorization continues to have the lowest electronic adoption rate of the medical transactions studied, electronic adoption increased by eight percentage points to 21 percent (Figure 10). This is the highest increase in electronic adoption among medical transactions. Web portal use declined nine percentage points from the previous report to 45 percent, while manual prior authorizations remained relatively steady at 34 percent. Medical plans reported that the increase in adoption may be partly explained by efforts to move the process away from outdated and limited legacy systems into the X12N 278, which is garnering more interest from the provider community.

6 YiDing Yu MD, "Transforming the prior authorization process to improve patient care and the financial bottom line," Medical Group Management Association, accessed December 29, 2020, https://www.mgma.com/resources/revenue-cycle/transforming-the-prior-authorization-process-to-im.

7 Andis Robeznieks, "Prior auth survey findings underscore need for legislative action," American Medical Association, accessed December 29, 2020, https://www.ama-assn.org/practice-management/sustainability/prior-auth-survey-findings-underscore-need-legislative-action.

8 "Intersection of Clinical and Administrative Data (ICAD) Task Force: Draft Recommendations to the HITAC," HealthIT.gov website, accessed December 29, 2020, https://www.healthit.gov/sites/default/files/facas/2020-10-21_HITAC_ICAD_TF_Recommendations.pdf.

9 Andis Robeznieks, "Efforts to fix prior auth move ahead in Congress, states," American Medical Association, accessed December 29, 2020, https://www.ama-assn.org/practice-management/payment-delivery-models/efforts-fix-prior-auth-move-ahead-congress-states.

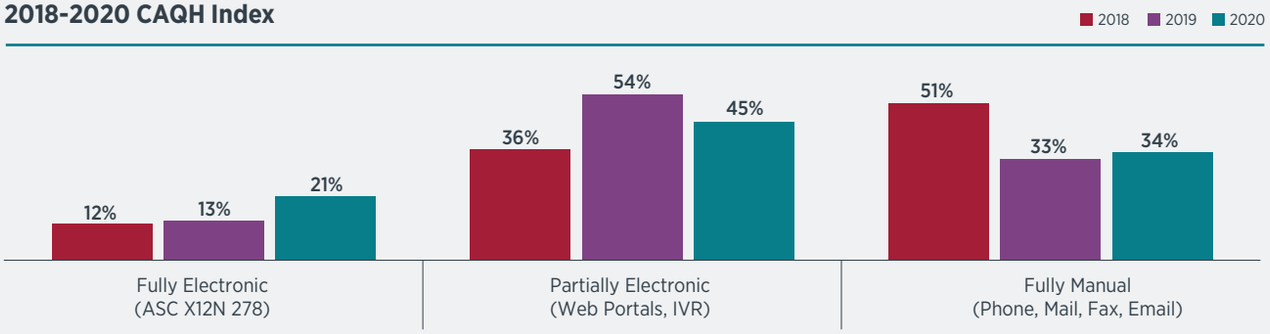
10 Jacqueline LaPointe, "370 Groups Seek Prior Authorization Automation, Reform in MA," Revcycle Intelligence, accessed December 29, 2020, https://revcycleintelligence.com/news/370-groups-seek-prior-authorization-automation-reform-in-ma.

11 Paige Minemyer, "AMA pushes for federal intervention to reform prior authorization," Fierce Healthcare, accessed December 29, 2020, https://www.fiercehealthcare.com/practices/ama-pushes-for-federal-intervention-to-reform-prior-authorization.

12 "Letter to the National Committee on Vital and Health Statistics (NCVHS) to request NCVHS review of CAQH CORE Operating Rules for Federal Adoption," uploads, CAQH website, accessed December 29, 2020, https://www.caqh.org/sites/default/files/core/CAQH%20CORE%20NCVHS%20Review%20Request%202.24.20_FINAL_1.pdf?token=4GGVq35S.

13 "Letter to the Secretary-Recommendations for Proposed Prior Authorization and Connectivity Operating Rules," uploads, NCVHS website, accessed December 29, 2020, https://ncvhs.hhs.gov/wp-content/uploads/2020/11/NCVHS-recommendations-on-Operating-Rules-FINAL-11-24-2020-508.pdf.

**Figure 10: Medical Plan Adoption of Prior Authorization, 2018-2020 CAQH Index**




## VOLUME

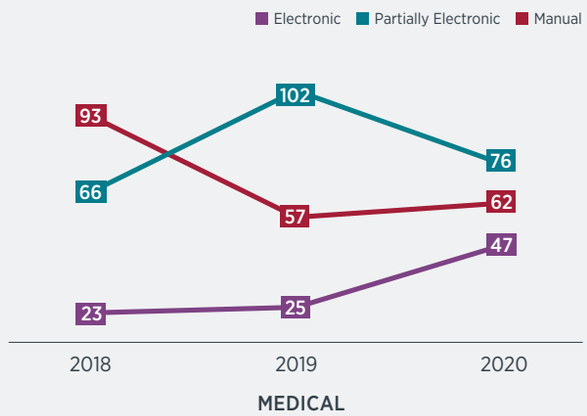
Prior authorization continues to be one of the lowest volume transactions in the medical industry for both plans and providers. While overall volume remained stable, the volume of fully electronic prior authorizations increased from 25 to 47 million, while partially electronic volume decreased from 102 to 76 million (Figure 11). Medical plans reported that the reduction in web portal volume may be the result of iterative portal enhancements and defects impacting provider usability and increased interest from providers in the standard electronic prior authorization transaction.

## ESTIMATED SPEND AND SAVINGS POTENTIAL

### Spend

Although electronic adoption increased, overall spending on prior authorization increased to $767 million as the cost to conduct prior authorizations rose for plans and providers, with 86 percent of the spending incurred by providers (Figure 12). Although it only accounts for two percent of the total spend for medical transactions, the cost to complete a prior authorization remains the single highest cost for the healthcare industry at $13.40 per manual transaction and $7.19 per partially electronic web portal transaction.

**Figure 11: Estimated National Volume of Prior Authorization by Mode, 2018-2020 CAQH Index (in millions)**




Note: Data represents plans and providers.

### Savings Potential

The medical industry avoided spending $482 million annually by moving some prior authorizations away from manual processing (Figure 12). An additional $417 million could be saved annually if plans and providers convert the remaining manual and partially electronic transactions to fully electronic transactions. The vast majority of this cost savings potential is tied to providers, who could reduce prior authorization costs by $322 million annually.

### Time

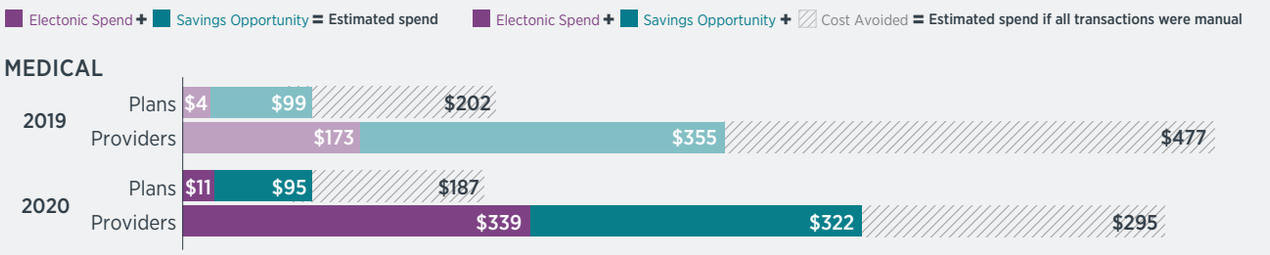
Prior authorization is the most time consuming transaction for providers. Providers reported spending an average of 20 minutes conducting a prior authorization manually, 13 minutes conducting one via a web portal and eight minutes conducting one using the fully electronic HIPAA-mandated standard. Some providers reported spending as much as an hour to complete a manual prior authorization.

**Prior Authorization**

**Potential Average Time Savings for Medical Industry (per transaction): 12 Minutes**

By transitioning from paper and fax to a fully electronic transaction, providers can save 12 minutes per transaction. Time savings can also be achieved by switching from web portals to the electronic standard (five minutes per transaction). Achieving sustainable reductions in time is particularly critical for providers conducting prior authorizations, as delays can negatively impact patient care.[14]

**Figure 12: Prior Authorization: How Much is Spent and Saved With Full Adoption? 2019-2020 CAQH Index (in millions)**




Note: May not be drawn to scale.

## CAQH CORE Operating Rules Automate and Accelerate Prior Authorization

The CAQH CORE Prior Authorization Operating Rules enhance the data content and infrastructure of the X12N 278. The rule ensures that electronic prior authorization information is standardized while being shared in an organized and trusted manner. It also sets clear expectations for initial response times, requests for additional documentation and final determinations, enabling timelier patient care. These operating rule requirements reduce the unnecessary back and forth between providers and health plans, accelerate adjudication timeframes and reduce provider resources spent on manual follow up.

In 2020 CAQH CORE launched a pilot with the Cleveland Clinic and PriorAuthNow to measure the impact of prior authorization automation, initially related to imaging and diagnostic testing. Early findings show an 80 percent reduction in staff time (savings of at least 12 minutes) on a prior authorization compared to web portals.[15] A staff satisfaction survey showed that most staff saved time initiating a request, checking on status, waiting for next steps and receiving a final determination. Additionally, staff found it easier to determine next steps and documentation needs.[16]

In 2021, CAQH CORE will continue its Pilot and Measurement Initiative to measure the impact of automation and workflow integration leveraging prior authorization standards and operating rules. Organizations interested in participating are encouraged to reach out to CAQH CORE for more information.

*For more information, visit www.caqh.org/core/prior-authorization.*

14 Keith Loria, "The impact of prior authorizations," Medical Economics Journal, accessed December 29, 2020, https://www.medicaleconomics.com/view/impact-prior-authorizations.

15 Susan Turney MD, Tim Kaja, April Todd, "Standards Subcommittee Meeting: Hearing on Request for NCVHS Review of CAQH CORE Operating Rules for Federal Adoption," uploads, NCVHS website, accessed January 14, 2021, https://ncvhs.hhs.gov/wp-content/uploads/2020/09/C-CORE-Todd-Turney-Kaja-508.pdf.

16 "Prior Authorization Automation Case Study Webinar with Cleveland Clinic, PriorAuthNow & CAQH CORE," CAQH website, August 17, 2020, https://www.caqh.org/sites/default/files/core/CORE_Cleveland_Clinic_PriorAuthNow_Case_Study_Webinar_Slides.pdf.

## Claim Submission

Upon completion of a patient encounter, a provider submits a claim detailing the patient's condition, diagnosis, treatment and costs associated with the treatment to obtain payment for the services provided. Claims are submitted electronically or manually either directly to the health plan or through a clearinghouse or intermediary biller.

As in previous years, claim submission continues to be the most widely adopted electronic transaction for both the medical and dental industries, with the medical industry remaining at almost full electronic adoption. While a sizable gap exists between the medical and dental industry, adoption for the dental industry is steadily increasing.

### ADOPTION

For medical plans, claim submission adoption remains stable at 96 percent. The stable trend suggests that the medical industry is approaching full adoption of electronic claim submission (Figure 13). Dental plan adoption of electronic claim submissions continues to increase, rising two percentage points to 82 percent. This transaction has the highest adoption rate for the dental industry.

**Electronic Claim Submission**


**$785 Million in Potential Savings Annually for the Medical and Dental Industries Combined**

**Medical Industry: $522 M**

**Dental Industry: $263 M**

### VOLUME

Medical and dental volume for claim submissions increased eight percent and three percent, respectively. Both industries experienced an increase in manual volume, driven by providers (Figure 14). For the medical industry, claim submission has the second highest per member volume at 12 transactions, whereas the dental industry remained stable at two transactions per member.

### ESTIMATED SPEND AND SAVINGS POTENTIAL

#### Spend

Spending on medical claim submission increased to $5.5 billion annually and accounts for 17 percent of total medical industry spend, with 91 percent of spending directly attributed to providers (Figure 15). Dental

**Figure 13: Medical and Dental Plan Adoption of Claim Submission, 2018-2020 CAQH Index**

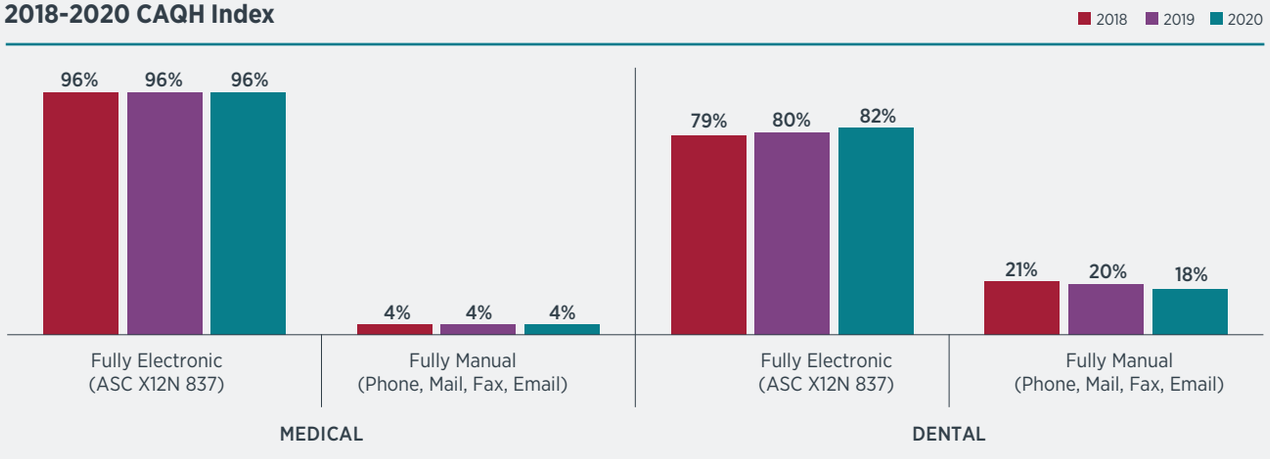
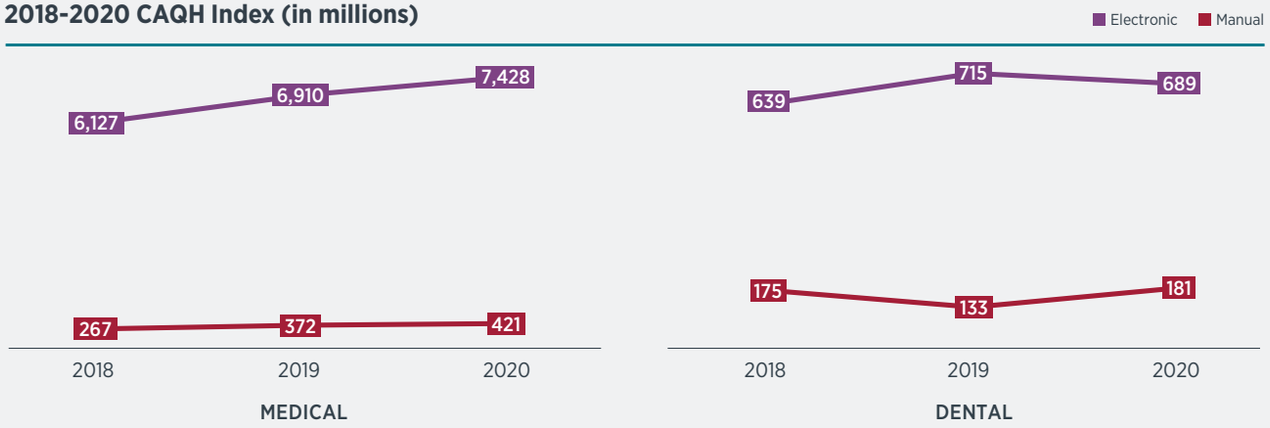


**Figure 14: Estimated National Volume of Claim Submission by Mode, 2018-2020 CAQH Index (in millions)**




Note: Data represents plans and providers.

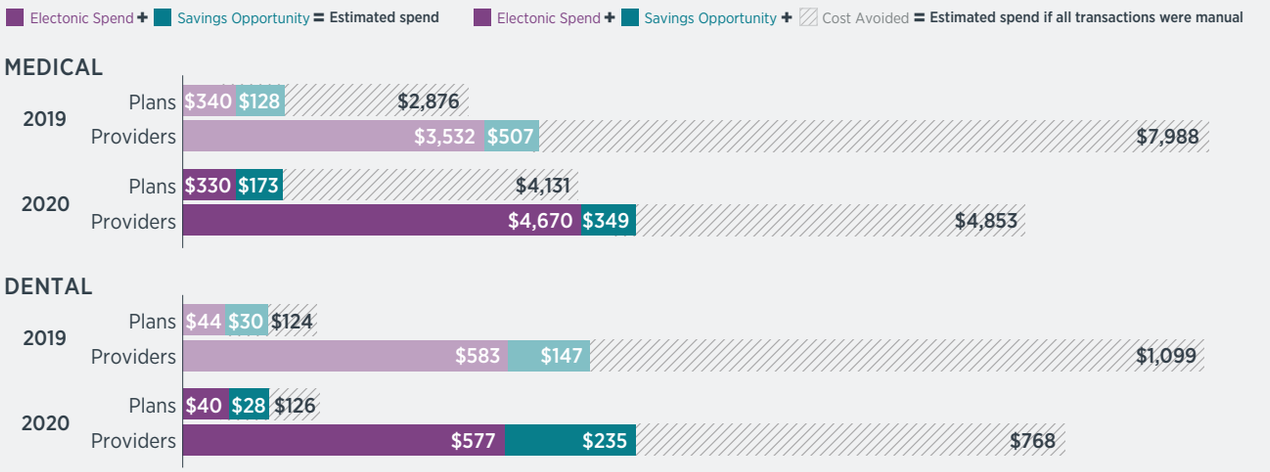
industry spending increased to $880 million, the lowest among the dental transactions. Dental providers account for most of the spending at $812 million, or 92 percent, of dental industry spending on this transaction.

## Savings Potential

As the most automated of the transactions studied, the medical industry avoided nearly $9 billion annually through automation (Figure 15). The medical industry could save an additional $522 million annually by submitting the remaining manual claims electronically.

The dental industry could save an additional $263 million annually by submitting all claims electronically. This is the lowest savings opportunity among the dental transactions, accounting for nine percent of the dental industry's total savings opportunity. Despite representing a small amount of the total savings opportunity, the dental industry has already avoided spending $894 million annually by submitting most claims electronically. After eligibility and benefit verification, this is the second highest savings reported.

**Figure 15: Claim Submission: How Much is Spent and Saved With Full Adoption? 2019-2020 CAQH Index (in millions)**




Note: May not be drawn to scale.

### Time

On average, medical providers reported spending five minutes submitting a manual claim compared to two minutes for an electronic claim. Providers could save, on average, three minutes per claim submission by submitting the transaction using the HIPAA-mandated standard.

Dental providers spend, on average, six minutes submitting a claim manually and two minutes submitting a claim electronically. By submitting a claim electronically, dental providers could save, on average, four minutes per submission.


## Value-based Payment Pilot and Measurement Initiative Efforts: Expanding Code Sets on Claim Submissions

In 2021, CAQH CORE will launch a pilot evaluating the use of expanded code sets on claim submissions to convey non-service-related clinical information to reduce the administrative burden associated with quality measure reporting for value-based payment contracts. The pilot will evaluate the type and volume of quality measure reporting elements that could be conveyed on claims and the cost and time savings associated with reporting this information on claims vs other mechanisms. Organizations interested in participating are encouraged to reach out to CAQH CORE for more information.

*For more information, visit [www.caqh.org/core/value-based-payments](www.caqh.org/core/value-based-payments).*

## Attachments

Attachments, or additional medical documentation, serve as a bridge between clinical and administrative data. They provide health plans with information to adjudicate a subset of claims, prior authorizations, referrals, post-adjudication appeals, audits and more. The CAQH Index measures attachments associated with prior authorizations and claims, which can include medical documentation such as imaging scans, lab results and discharge summaries associated with a requested procedure or service.

Although there is wide variety in how attachments are exchanged between providers and health plans, mail and fax are the most predominate methods.[17] An electronic transaction standard for attachments has not yet been federally mandated by the Department of Health and Human Services (HHS). As a result, health plans, providers and vendors are hesitant to develop standardized approaches to automate the exchange of attachments. This has led to varied and incomplete electronic solutions and manual workarounds.

In 2020, CAQH CORE convened industry stakeholders to develop operating rules to support the consistent exchange of attachments between providers and health plans. CAQH CORE Subgroups are in the process of developing operating rules for existing and emerging standards to support the exchange of attachments for claims and prior authorization. These operating rules are intended to support the transaction standard that is anticipated to be released by HHS in 2021.[18]

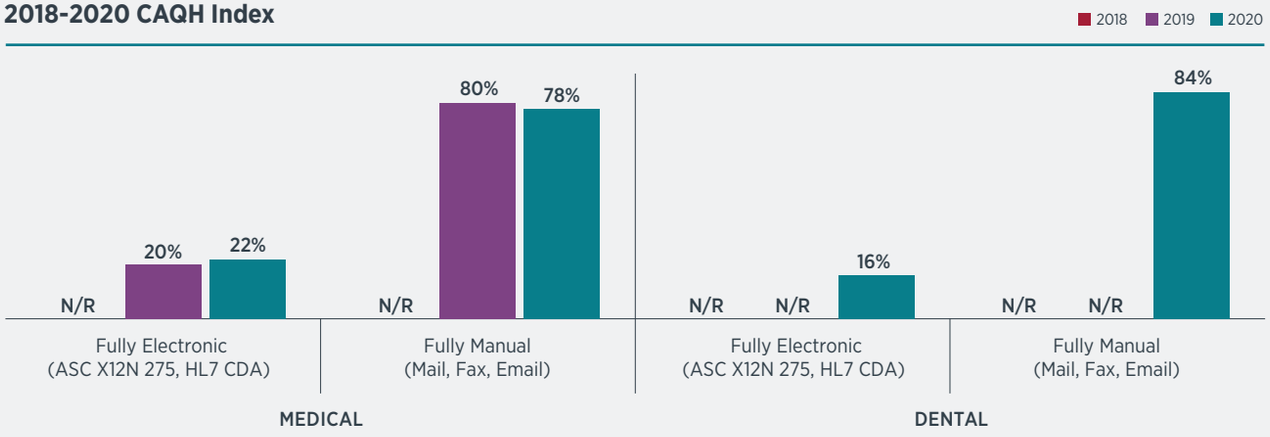
**Electronic Attachments**

**$377 Million in Potential Savings Annually for the Medical Industry**


### ADOPTION

Medical plan adoption of electronic attachments remains low relative to other transactions at 22 percent, one percentage point higher than that for prior authorization (Figure 16). Use of fully electronic attachments increased two percentage points compared to the previous report.

**Figure 16: Medical and Dental Plan Adoption of Attachments, 2018-2020 CAQH Index**




N/R = Not Reported

17 "CAQH CORE Report on Attachments: A Bridge to a Fully Automated Future to Share Medical Documentation," CAQH CORE, accessed January 4, 2021, https://www.caqh.org/sites/default/files/core/core-attachmentsenvironmental-scan-report.pdf.

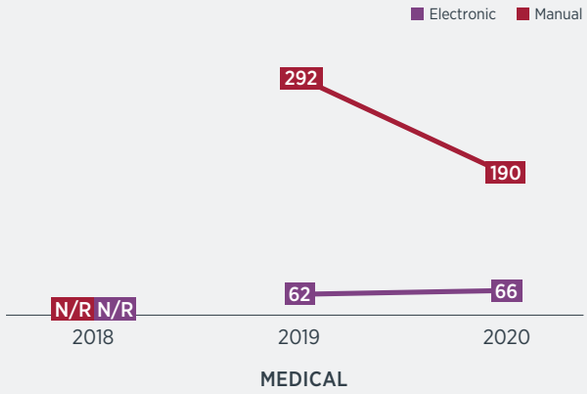
18 U.S. Department of Health and Human Services (HHS). *Administrative Simplification: Adoption of Standards for Health Care Attachment Transactions and Electronic Signatures, and Modification to Referral Certification and Authorization Standard (CMS-0053).* By Daniel Kalwa. Available at: https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202010&RIN=0938-AT38. Accessed: January 4, 2021.

The 2020 CAQH Index is the first report in which dental attachments can be presented. Similar to the medical industry, the majority of dental attachments are conducted manually (84 percent). Dental adoption of electronic attachments is at 16 percent.

## VOLUME

Attachment volume reported by medical plans and providers declined 28 percent to 256 million and accounts for less than one percent of the overall volume of medical transactions (Figure 17). The decrease in volume is driven by the 35 percent drop in manual transactions from 292 million to 190 million. According to medical plans, manual volume may continue to decline further as plans reduce the number of attachments required for certain bill types.

**Figure 17: Estimated National Volume of Attachments by Mode, 2019-2020 CAQH Index (in millions)**




N/R = Not Reported
Note: Data represents plans and providers.

## ESTIMATED SPEND AND SAVINGS POTENTIAL

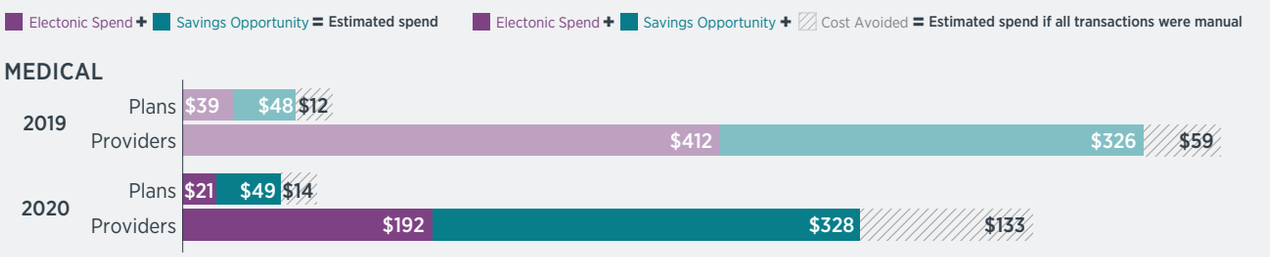
### Spend

The medical industry spent $590 million annually exchanging attachments, 28 percent less than the previous report (Figure 18). While manual costs increased for health plans and providers, the decrease in overall manual volume off-set an increase in spend. Spending associated with conducting attachments is small relative to other transactions and accounts for only two percent of the overall medical spend.

### Savings Potential

Moving from manual to fully electronic attachments could save the industry $4.09 per transaction for a total potential cost savings of $377 million annually (Figure 18). Most of the cost savings opportunity can be attributed to providers, who could save $328 million annually, or $3.60 per transaction. This savings opportunity is on top of the $147 million in annual costs the medical industry has already avoided spending by using electronic attachments.

**Figure 18: Attachments: How Much is Spent and Saved With Full Adoption? 2019-2020 CAQH Index (in millions)**




Note: May not be drawn to scale.

### Time

On average, medical providers reported spending 11 minutes exchanging attachment information via mail and fax compared to three minutes using the HIPAA-mandated standard. Providers could save an average of eight minutes by conducting attachments electronically as opposed to manually. Some providers reported spending as much as 30 minutes submitting a manual attachment and up to 10 minutes submitting an electronic attachment.

**Electronic Attachments**

**Potential Average Time Savings for Medical Industry (per transaction): 8 Minutes**

## CAQH CORE Attachments Operating Rules in Development for Prior Authorization and Claims

The CAQH CORE Attachments Subgroup launched in Q3 2020 with an initial focus on the electronic exchange of attachments for prior authorization. Current draft operating rules build on the CAQH CORE Prior Authorization Operating Rules with a focus on exchange formats, infrastructure and data content. The Subgroup will begin developing operating rules to support the electronic exchange of attachments for healthcare claims in Q2 2021. The rules are intended to support both existing and emerging standards and their intersection to help the industry with the needed connection of administrative and clinical data.

Once the rule requirements are drafted for both the prior authorization and claim attachment use cases, the formal CAQH CORE rule approval process will launch with a goal of finalizing operating rule requirements in Q4 2021. The operating rules will provide consistency and parity across the claims and prior authorization attachments use cases.

*For more information, visit [www.caqh.org/core/additional-medical-documentationattachments](www.caqh.org/core/additional-medical-documentationattachments).*

## Acknowledgements

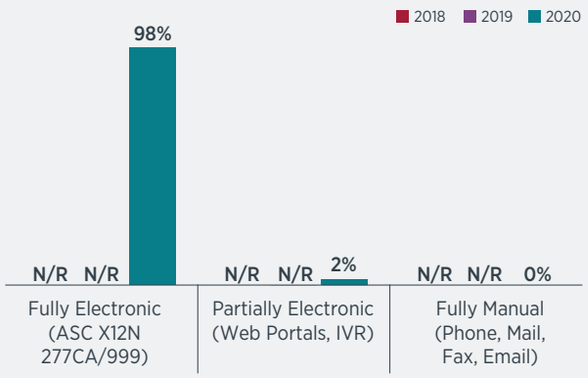
Within the administrative workflow, information is exchanged between health plans, providers and vendors. The information exchanged may be a claim, medical/clinical documentation, payment or patient attributes. An acknowledgement confirms a file or information has been received and accepted or rejected based on plan and standard requirements. CAQH CORE operating rules require that an acknowledgment is used for every transaction. The majority of acknowledgements are conducted electronically, as many systems have automated this response.

The CAQH Index counts the number of 999 and 277CA transactions. The 999 is used to acknowledge all X12 transactions submitted in batch mode regardless of the transaction type. The 999 includes information about whether the received transaction is accepted or rejected due to errors (the negative 999 is used to respond to real time transactions that have been rejected due to errors). The 277CA is used to acknowledge the receipt of a claim by a health plan or its vendor, notifies the provider the claim is accepted or rejected and provides the necessary corrections needed prior to resubmitting the claim.

### ADOPTION

Medical plan adoption of electronic acknowledgements is at 98 percent, while portal use is at two percent (Figure 19). No acknowledgements were reported using a manual method such as fax, phone or mail.

**Figure 19: Medical Plan Adoption of Acknowledgements, 2020 CAQH Index**




N/R = Not Reported

### VOLUME

The medical industry completed nearly 3.4 billion acknowledgements, representing eight percent of the overall industry volume. Of these, 3.3 billion were conducted using the the fully electronic transaction. The remaining 57 million acknowledgements were completed using a portal. The per member rate for acknowledgements is 10 transactions per member.

*NOTE: This is a baseline reporting year for acknowledgements. Due to a low volume of contributed medical and dental data for this transasction, the CAQH Index can only calculate and report on partial medical benchmarks.*

## Coordination of Benefits

Coordination of benefits (COB) transactions occur when a patient has more than one form of healthcare coverage. A health plan uses this transaction to determine if it should be the primary or secondary payer of the patient's medical claim and to coordinate payment for a patient's care. This process is intended to prevent the duplication of benefits. If health plans are not properly coordinated, inaccurate and late payments, along with claim edits and increased administrative burden, may occur.

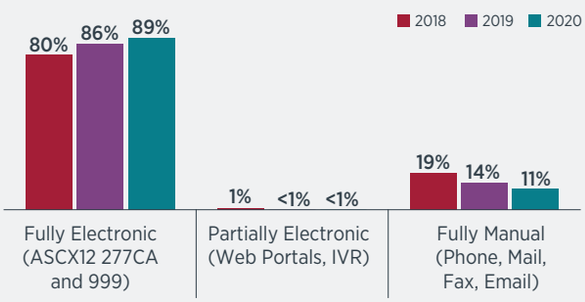
### ADOPTION

Medical plan adoption of fully electronic COB increased by three percentage points to 89 percent (Figure 20). The use of manual transactions decreased by three percentage points to 11 percent, while the use of web portals remain nearly non-existent.

### VOLUME

The number of COB transactions conducted increased 23 percent from 134 million to 165 million (Figure 21). This was driven by an increase in the use of electronic transactions. Manual volume remained relatively stable.

**Figure 20: Medical Plan Adoption of Coordination of Benefits, 2018-2020 CAQH Index**




**Electronic Coordination of Benefits**

**$19 Million** in Potential Savings Annually for the Medical Industry


### ESTIMATED SPEND AND SAVINGS POTENTIAL

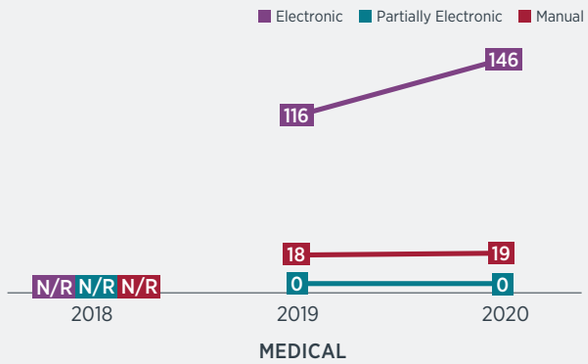
#### Spend

Medical plan spending on COB increased 34 percent to $55 million annually (Figure 22). This increase is due to higher volume and costs. This remains the transaction with the lowest spend, accounting for less than one percent of the overall medical industry spend.

#### Savings Potential

Medical plans could save up to $19 million annually by conducting COB transactions electronically (Figure 22). This is in addition to the $152 million in annual costs that the industry has already avoided by transitioning to electronic transactions.

**Figure 21: Estimated National Volume of Coordination of Benefits by Mode, 2020 CAQH Index (in millions)**




N/R = Not Reported
Note: Data represents plans and providers.

**Figure 22: Coordination of Benefits: How Much is Spent and Saved With Full Adoption? 2019-2020 CAQH Index (in millions)**


Note: May not be drawn to scale.

## Claim Status Inquiry

After a claim has been sent to a health plan, providers may make an inquiry on the status of a claim. This exchange allows providers and their vendors to track claims as they are being processed. These inquiries occur most often using the HIPAA-mandated electronic standard or via a web portal.

Fully electronic volume increased and manual volume decreased for the medical and dental industries. However, costly and time-consuming manual inquiries resulted in claim status inquiry having the highest and second highest per transaction cost for the dental and medical industries, respectively. By using the electronic HIPAA-mandated standard, providers can automatically generate and submit queries as needed, eliminating the need for costly manual entry or calls, thus reducing provider burden.

### ADOPTION

Medical plan adoption of electronic claim status inquiries rose two percentage points to 72 percent after decreasing slightly in the prior report (Figure 23). Manual claim status inquiries also increased by one percentage point to six percent, while partially electronic claim status inquiries decreased three percentage points to 22 percent.

**Electronic Claim Status Inquiry**


**$3.1 Billion in Potential Savings Annually for the Medical and Dental Industries Combined**

**Medical Industry: $2.3 B**

**Dental Industry: $809 M**

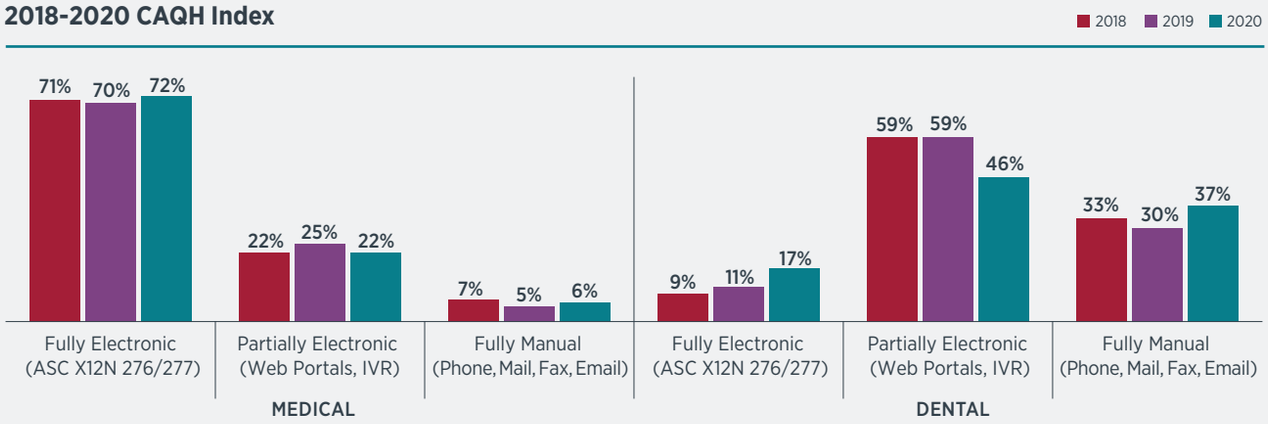
The dental industry experienced a six and seven percentage point increase in fully electronic (17 percent) and manual (37 percent) claim status inquiries, respectively. Partially electronic claim status inquiry declined 13 percentage points to 46 percent.

### VOLUME

For the medical industy, claim status volume increased four percent to 2.5 billion after a five percent decrease in the prior report (Figure 24). The increase in volume is driven by a 20 percent rise in both fully and partially electronic transactions.

In contrast, dental claim status volume declined 26 percent to 301 million driven by a sizable decline in web portal use (48 percent). Fully electronic volume increased by almost 30 percent while manual volume remained fairly stable. Claim status volume is the lowest among the dental transactions.

**Figure 23: Medical and Dental Plan Adoption of Claim Status Inquiry, 2018-2020 CAQH Index**



## ESTIMATED SPEND AND SAVINGS POTENTIAL

### Spend

Spending on claim status inquiries declined by 26 percent to $3.8 billion as a result of lower costs for providers associated with conducting electronic transactions (Figure 25). Although spending declined, claim status inquiries still account for 11 percent of the total medical industry spend on administrative transactions. Similar to other transactions, medical provider spending accounts for most of the total industry spend at $3.5 billion annually, compared to $321 million for medical plans. While medical plans did not report changes in cost from the previous year, provider costs declined for electronic claim status inquiries and increased for manual and partially electronic claim status inquiries. On average, providers spent $9.37 conducting a manual claim status inquiry and $3.29 using a partially electronic transaction—the second highest provider cost per transaction after prior authorization.

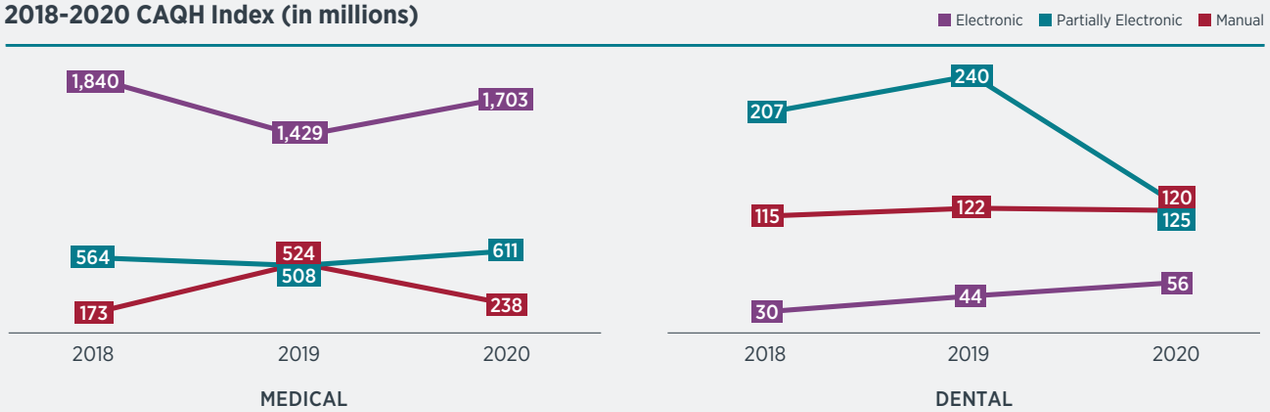
Spending on claim status inquiries accounts for 19 percent of the annual dental spend at $1 billion annually—a number that remained fairly stable despite shifts in the processing mode. For dental providers, claim status inquiry remained the most expensive transaction to conduct manually ($9.29 per transaction). Partially electronic costs per transaction doubled for dental providers, resulting in the most expensive transaction to conduct using this mode. This increase in cost may be related to the significant reduction in partially electronic transactions by dental providers.

### Savings Potential

By conducting claim status inquiries electronically, the medical industry could save $2.3 billion annually, representing 17 percent of the total medical savings opportunity (Figure 25). The annual savings opportunity is greater for providers than plans at $2.1 billion vs $263 million, respectively. This saving opportunity is in addition to the $12.6 billion in annual costs the medical industry has avoided through automation.

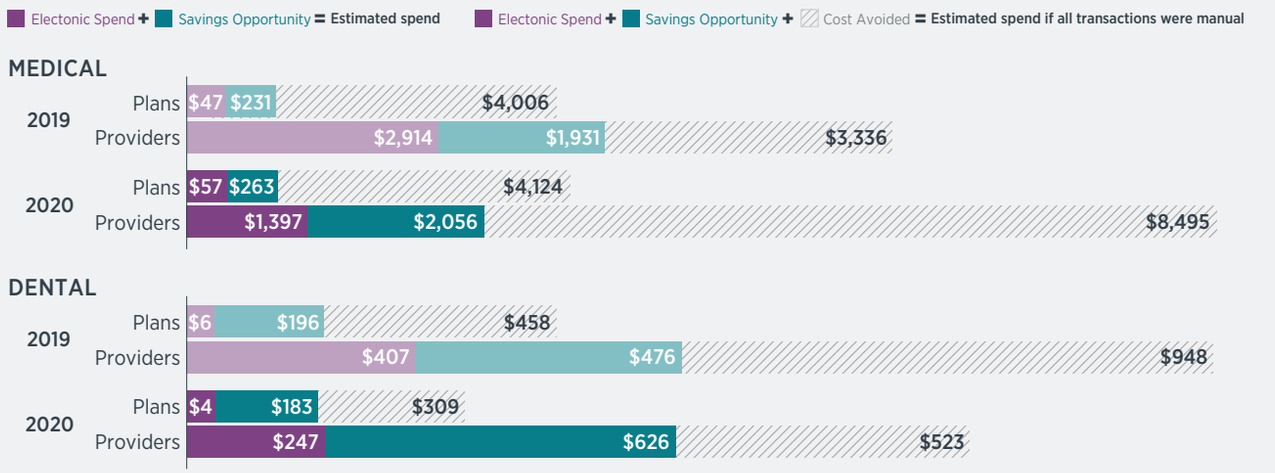
For the dental industry, claim status inquiry is the leading cost savings opportunity. The dental industry could save $809 million annually by transitioning to fully electronic claim status inquiries. Dental providers could save $626 million annually while plans could save $183 million. This savings is on top of the $831 million that the industry has already avoided annually by automating these transactions.

**Figure 24: Estimated National Volume of Claim Status Inquiry by Mode, 2018-2020 CAQH Index (in millions)**




Note: Data represents plans and providers.

**Figure 25: Claim Status Inquiry: How Much is Spent and Saved With Full Adoption? 2019-2020 CAQH Index (in millions)**




Note: May not be drawn to scale.

## Time

Claim status inquiry is one of the most time-consuming transactions for providers to conduct following prior authorization. Medical providers reported spending, on average, 19 minutes conducting a claim status inquiry manually via phone, fax or email compared to just two minutes using the fully electronic HIPAA-mandated standard. Using the fully electronic HIPAA standard as opposed to manual methods, medical providers could save 17 minutes per transaction, the highest among the transactions reported. Medical providers could also save four minutes by transitioning partially electronic claim status inquiries to fully electronic transactions.

For the dental industry, conducting a manual inquiry requires, on average, 17 minutes of staff time, the highest manual time among the dental transactions. Significantly less time is required to conduct an electronic inquiry (three minutes). By switching from manual to electronic transactions, dental providers could save 14 minutes per transaction, the highest time savings opportunity reported. Time savings can also be achieved by moving partially electronic transactions to fully electronic transactions (four minutes).

**Electronic Claim Status Inquiry**

**Potential Average Time Savings (per transaction):**

**Medical Industry: 17 Minutes**

**Dental Industry: 14 Minutes**

## Claim Payment

A claim is paid after it is validated and approved by a health plan. A payment is then issued electronically or via a paper check. For the medical industry, the majority of payments are made through an electronic fund transfer (EFT). Over time, the use of EFTs has increased, resulting in faster payments.[19] Although the majority of dental payments are made via a paper check, the industry is seeing an uptick in the number of electronic dental payments, specifically for dental providers who have historically been hesitant to trust the exchange of electronic funds.

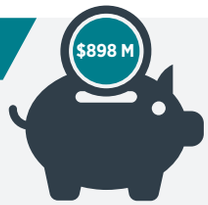
This increase in dental provider electronic volume may be due to continued promotion of electronic payments from dental industry partners. The American Dental Association (ADA)[20] and National Association of Dental Plans (NADP)[21] support and encourage enrollment in electronic claim payments for quicker and easier reimbursement.

### ADOPTION

The medical industry has seen a steady rise in plan adoption of electronic payments (Figure 26). Adoption increased four percentage points to 74 percent, while use of manual transactions declined. Dental plan adoption remained stable at 13 percent—the lowest adoption rate among the dental transactions.

**Electronic Claim Payment**

**$898 Million in Potential Savings Annually for the Medical and Dental Industries Combined**



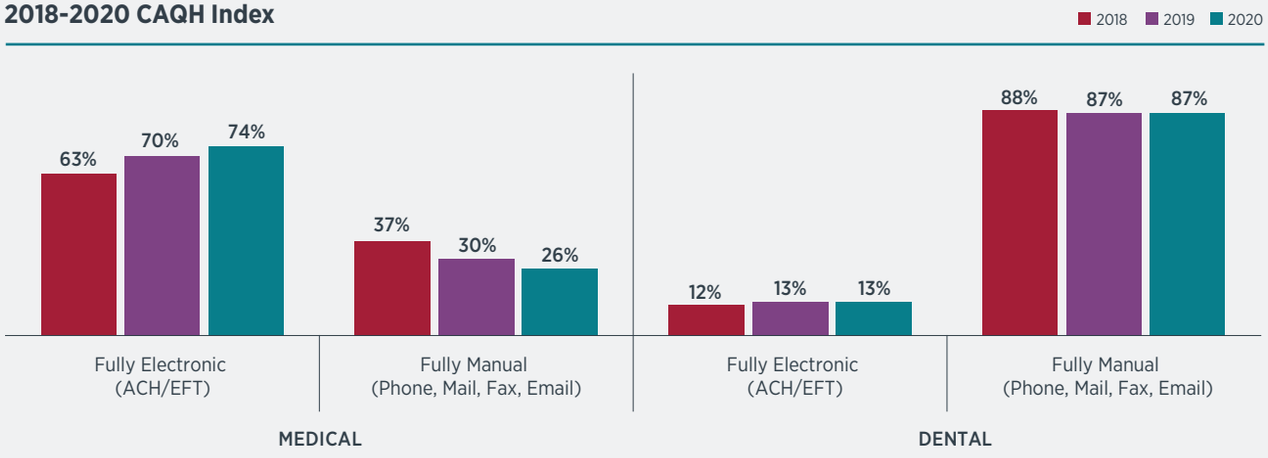

**Medical Industry: $426 M**

**Dental Industry: $472 M**

### VOLUME

The total number of claim payments for the medical industry rose 18 percent to 1.1 billion (Figure 27). Like last year, the overall increase in volume mimics that of claim submission, with claim payment volume being lower due to payments paid in bulk. Overall volume also increased for the dental industry (three percent), driven by an increase in dental provider electronic payments. The 12

**Figure 26: Medical and Dental Plan Adoption of Claim Payment, 2018-2020 CAQH Index**

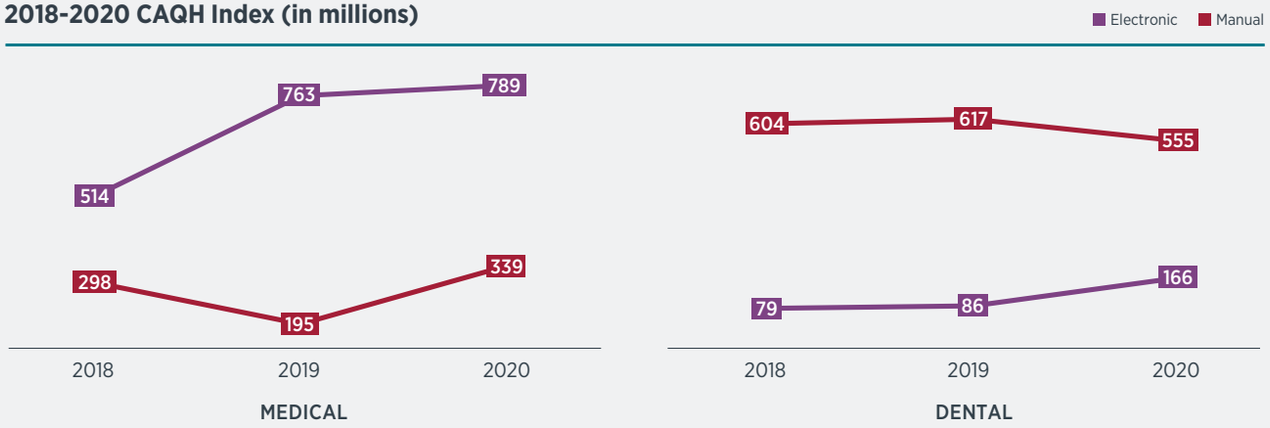



19 "Nacha Reports ACH Network Growth of 7.1% in First Quarter 2020; Expects Slowdown Due to COVID-19," News, Nacha website, January 4, 2021, https://www.nacha.org/news/nacha-reports-ach-network-growth-71-first-quarter-2020-expects-slowdown-due-covid-19.

20 "Electronic data interchange can transform a dentist's practice," ADA News Archive, American Dental Association, January 4, 2021, https://www.ada.org/en/publications/ada-news/2019-archive/september/electronic-data-interchange-can-transform-a-practice.

21 "2019 Annual Report National Association of Dental Plans," Dental Benefits Report, NADP, January 4, 2021, https://www.nadp. org/docs/default-source/default-document-library/annual-report-2020_final. pdf?sfvrsn=6d243be1_0.

**Figure 27: Estimated National Volume of Claim Payment by Mode, 2018-2020 CAQH Index (in millions)**




Note: Data represents plans and providers.

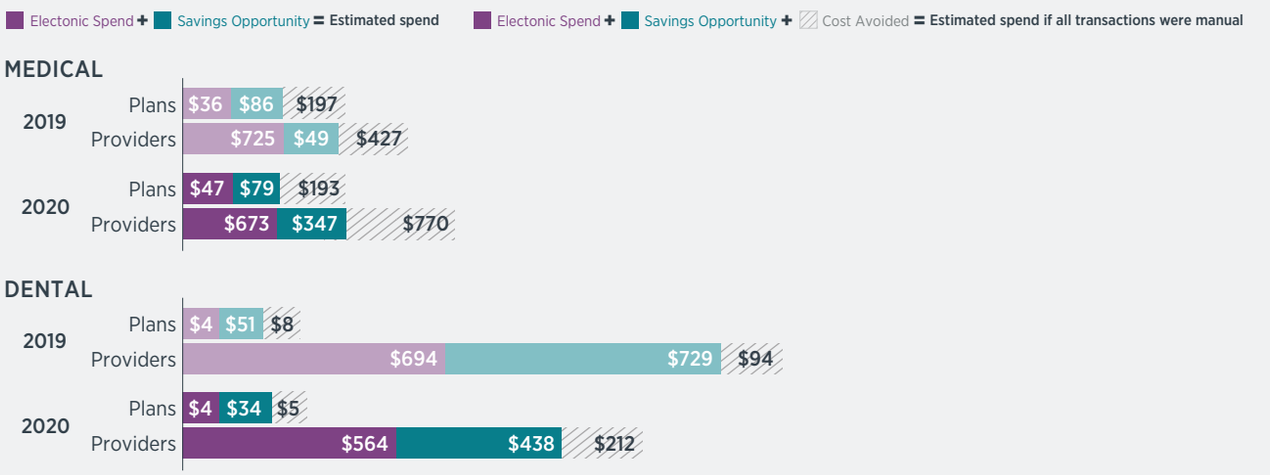
percent overall increase in electronic payment volume across the medical and dental industries matches the increase noted by NACHA during this same time frame.[22]

## SPEND AND POTENTIAL SAVINGS

### Spend

Compared to the previous report, the medical industry spent 28 percent more processing claim payments while the dental industry spent 30 percent less (Figure 28). An increase in manual claim payment costs for medical providers coupled with increasing volumes drove the overall rise in medical industry spending. Conversely, the cost to conduct a manual claim payment for the dental industry decreased, as did manual volume resulting in an overall decrease in spend.

**Figure 28: Claim Payment: How Much is Spent and Saved With Full Adoption? 2019-2020 CAQH Index (in millions)**




Note: May not be drawn to scale.

22 "ACH Network Volume Statistics," News, Nacha website, January 4, 2021, 2019, https://www.nacha.org/content/ach-network-volume-statistics.

### Savings Potential

For the medical industry, the savings associated with switching from paper checks to electronic payments more than doubled from the previous reports (Figure 28). Manual transaction costs increased and electronic transaction costs decreased for providers while overall volume increased. This cost savings opportunity represents three percent of the overall medical savings opportunity. Despite the increase in potential cost savings from further automation, the medical industry has already avoided spending $963 million annually by switching from paper checks to EFTs.

In comparison, the cost savings opportunity for the dental industry declined as more dental providers reported accepting electronic payments. Claim payment accounts for 16 percent of the overall savings opportunity for the dental industry. Through automation, the dental industry has avoided spending $218 million annually on claim payments.


### Time

Medical providers indicated that processing a paper check takes, on average, six minutes to complete, compared to two minutes for an electronic payment. Medical providers could save four minutes per claim payment by switching to electronic payments.

On average, dental providers spent six minutes processing a paper check compared to three for an electronic check. Similar to medical providers, dental providers could save three minutes per payment by fully automating this transaction.

## Remittance Advice

A remittance advice is generated and sent to the provider after the claim has been approved and payment has been issued. The generated statement is an explanation of payment, services performed and any adjustments made to the claim. For both the medical and dental industry, adoption of electronic remittance advice continues to increase.

Previous CAQH Index reports have shown a continual increase in the volume of remittance advice transactions. This is due in part to duplicate posting of remittance advice information on health plan portals and through the electronic remittance advice (ERA) standard to allow providers various opportunities to access the information. This practice appears to be declining in this report as the volume of ERA transactions declined for the medical industry, driven by fewer partially electronic web portal transactions.

### ADOPTION

Medical plan adoption of electronic remittance advice continued to increase, rising six percentage points (Figure 29). Use of partially electronic transactions declined by eight percentage points to 39 percent.

**Electronic Remittance Advice**


**$3.2 Billion in Potential Savings Annually for the Medical and Dental Industries Combined**

**Medical Industry: $2.5 B**

**Dental Industry: $684 M**

Dental plans also showed an increase in adoption year over year, rising three percentage points to 25 percent. The use of manual remittance advice continued to decrease dropping four percentage points.

### VOLUME

The overall volume of medical remittance advice transactions for plans and providers decreased by three percent (Figure 30). This was driven by a significant decline in partially electronic transaction volume that was not fully offset by the increase in electronic volume.

Dental industry volume rose 20 percent, due to a sizeable increase in electronic volume. Despite this, per member volume remained stable at one transaction.

**Figure 29: Medical and Dental Plan Adoption of Remittance Advice, 2018-2020 CAQH Index**

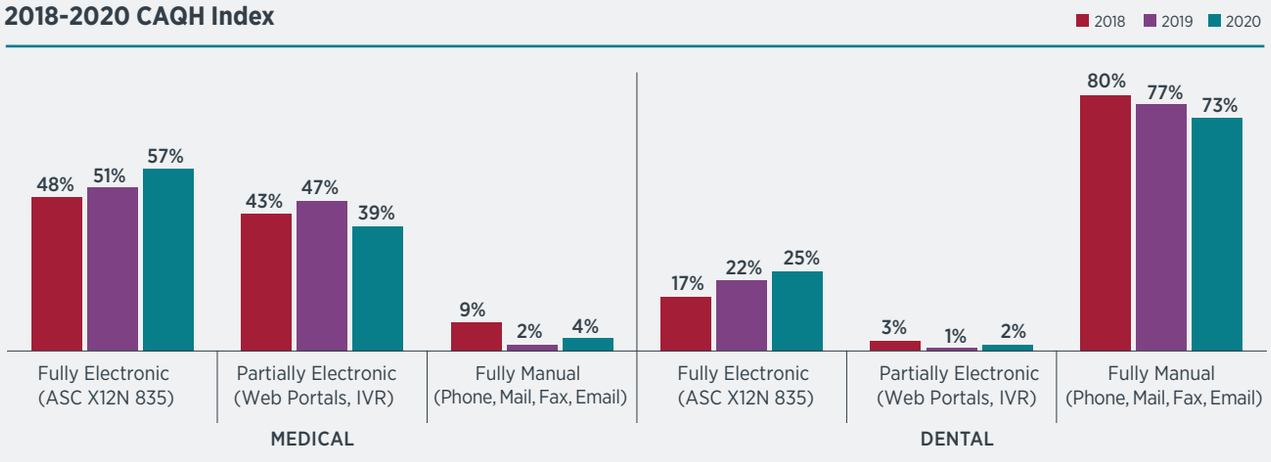
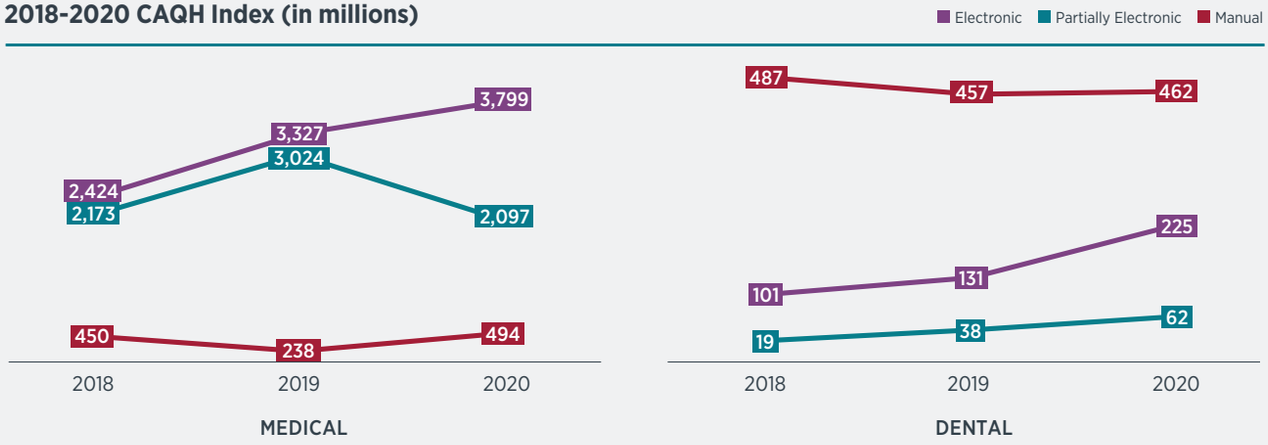


**Figure 30: Estimated National Volume of Remittance Advice by Mode, 2018-2020 CAQH Index (in millions)**




Note: Data represents plans and providers.

## SPEND AND POTENTIAL SAVINGS

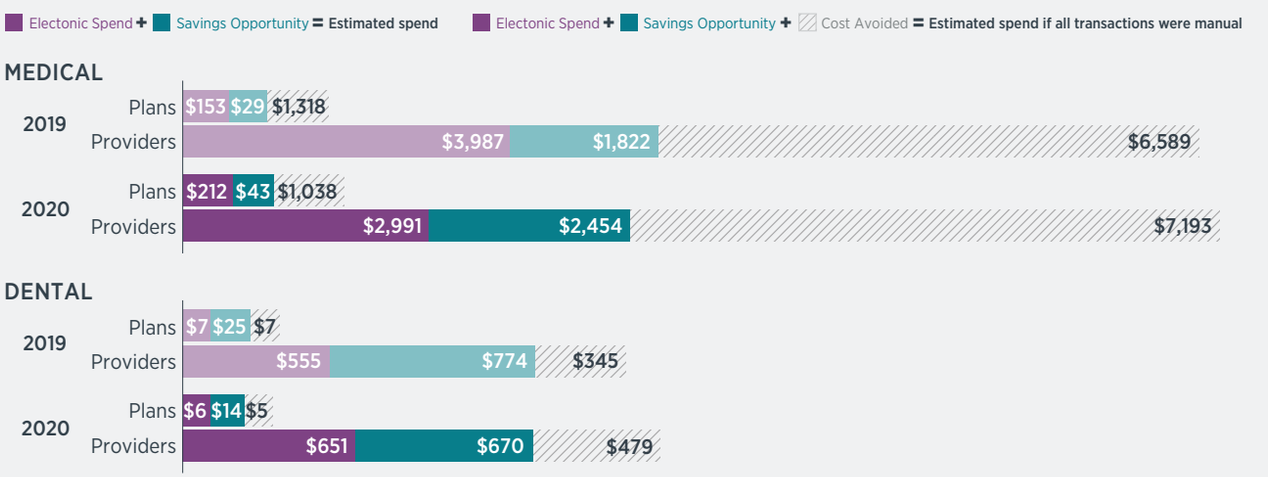
### Spend

The medical and dental industries combined spent $7 billion on remittance advice transactions, representing the second highest transaction expense after eligibility and benefit verification (Figure 31). Spending was fairly stable from the previous report, with the medical industry spending almost $6 billion and the dental industry spending more than $1 billion on remittance advice transactions. For both industries, provider spending accounts for almost all of the expenses at approximately 96 percent.

### Savings Potential

The medical industry could save $2.5 billion annually by switching from manual to electronic remittance advices (Figure 31). This savings opportunity is the second highest among the transactions and represents 19 percent of the overall potential savings opportunity for medical transactions. The cost savings opportunity can be attributed almost entirely to medical providers, who could save over 98 percent of the $2.5 billion savings opportunity. This potential savings is in addition to the $8.2 billion already saved by the medical industry.

**Figure 31: Remittance Advice: How Much is Spent and Saved With Full Adoption? 2019-2020 CAQH Index (in millions)**

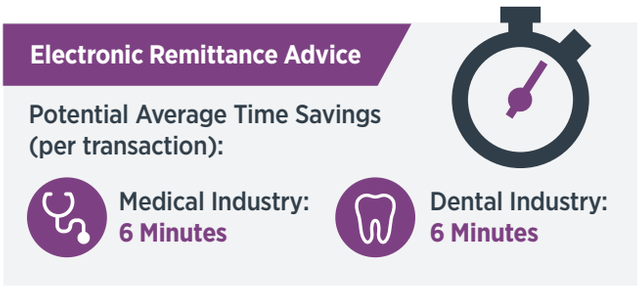



Note: May not be drawn to scale.

The dental industry could save $684 million by transitioning to fully electronic transactions. This savings opportunity is on top of the $484 million in cost avoided by automating remittance advice transactions.

### Time

Medical providers reported that, on average, it takes eight minutes to process a remittance advice manually compared to two minutes electronically. On average, dental providers indicated that they spent nine minutes processing a remittance advice manually compared to three minutes electronically. Both industries could save six minutes by switching from manual to electronic transactions and three minutes by switching from partially to fully electronic remittance advice transactions.



# Industry Call to Action

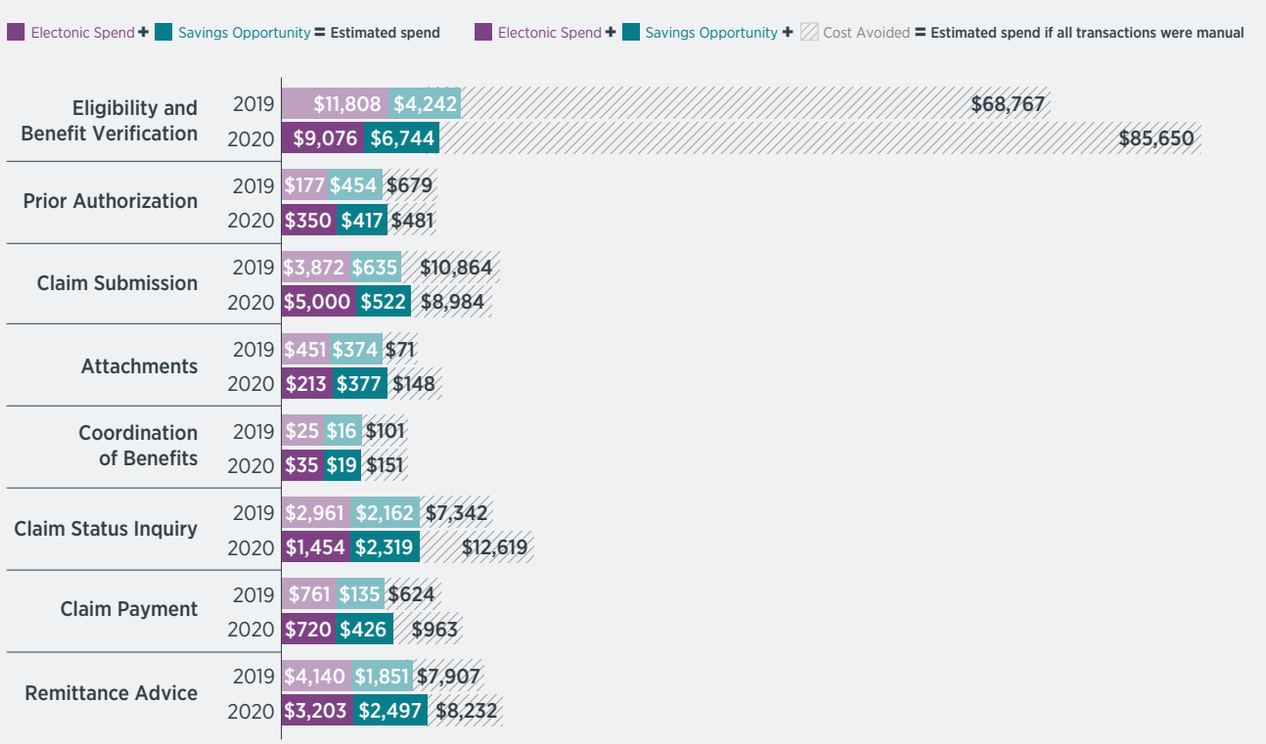
The industry continues to make progress towards a more automated administrative workflow as transaction volume increases, new business needs and technology emerge, and health insurance benefit and payment models evolve. Plans and providers are conducting more transactions electronically and avoiding more costs associated with processing these transactions (Figures 32 and 33). Despite these findings, medical providers reported spending more time completing transactions manually and via web portals, increasing the costs and the savings opportunity associated with moving to fully electronic transactions.

As presented throughout the report, opportunities exist to reduce the burden associated with conducting administrative transactions and drive further electronic adoption. Several transactions offer the greatest potential for savings and thus should be the focus. Ensuring that transaction standards and operating rules reflect current business requirements and address changing industry needs will help the industry reduce administrative burden and realize the savings opportunities identified in this report.

To maintain and support industry achievements to date while continuing to move forward, CAQH recommends the following actions for the industry:

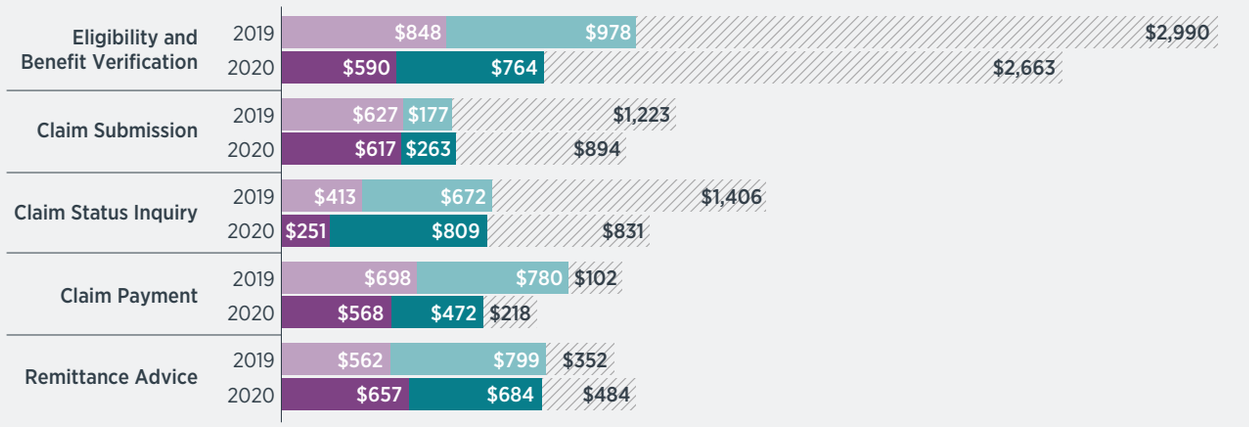
**Focus Efforts to Address Cost-Savings Opportunities:** Findings suggest that the increase in overall medical savings opportunity is attributed to higher web portal and manual costs for providers compared to lower costs for electronic transactions. Eligibility and benefit verification, the top savings opportunity for medical plans and providers, experienced a 37 percent increase in the savings opportunity as a result of higher transaction volume, higher manual and web portal costs and lower electronic transaction costs. Similarly, claim status inquiry experienced a 17 percent increase in the potential cost savings opportunity for the same reasons.

**Figure 32: Estimated Medical Spend and Savings by Transaction, 2019-2020 CAQH Index (in millions)**




Note: May not be drawn to scale.

**Figure 33: Dental Industry Estimated Spend and Savings by Transaction, 2019-2020 CAQH Index (in millions)**




Note: May not be drawn to scale.

The increase in partially electronic web portal and manual costs for eligibility and benefit verification, for example, may signal that the electronic transaction does not fully satisfy business needs and that those needs are becoming more complex and costly to process manually or through web portals. This suggests that updates to the eligibility and benefit verification transaction may be needed to keep pace with the changing needs of the industry.

When asked about the increase in web portal costs, medical plans participating in the 2020 CAQH Index indicated that web portal defects and outdated requirements have resulted in additional provider work when trying to complete transactions via web portals. The decrease in portal use and increase in the use of electronic prior authorizations may be a result of the increased burden associated with using portals, giving providers the incentive to request that plans use the standard electronic transaction.

**Accelerate Standards and Operating Rule Development to Address Emerging Market Needs:** As business needs continue to evolve, updated standards and operating rules are necessary to enable automation across trading partners and streamline administrative processes. Standards and operating rules need to support innovation and emerging trends, including value-based payment (VBP) models and the use of APIs, while enabling data exchange between organizations at various levels of maturity.

A number of government and industry efforts have been launched to update and create new standards and operating rules to ensure industry interoperability needs are met. For example, in 2020 the Office of the National Coordinator's (ONC) Health Information Technology Advisory Committee (HITAC) established the Intersection of Clinical and Administrative Data (ICAD) Task Force to make recommendations on the needed convergence of clinical and administrative data to support the prior authorization workflow.[23] Industry groups such as X12[24] and the Davinci Project[25] have been working to update and create new standards and implementation guides under accelerated timeframes to support changing business needs and government requirements.

To support the use of value-based payment (VBP) arrangements, in 2021, CAQH CORE will launch an

23 "A Path Toward Further Clinical and Administrative Data Integration," uploads, HITAC website, accessed January 11, 2019, https://www.healthit.gov/sites/default/files/page/2020-11/2020-11-17_ICAD_TF_FINAL_Report_HITAC.pdf.

24 "X12 Update to the ICAD Task Force," The Office of the National Coordinator for Health Information Technology (ONC) website, accessed January 12, 2021, https://www.healthit.gov/sites/default/files/facas/2020-06-16_X12_Presentation_508.pdf.

25 "Da Vinci Project," HL7 website, accessed January 12, 2021, https://www.hl7.org/about/davinci/.

effort to evaluate the use of expanded code sets on claim submissions to convey non-service-related clinical information for quality measurement. As VBP contracts become more common, incorporating value-based payment requirements into standards and operating rules will help health plans and providers more easily communicate needed data.

In addition to value-based payment operating rules, CAQH CORE is conducting a pilot related to the prior authorization workflow. Cited as one of the most burdensome process for providers,[26] the pilot will measure the impact of new operating rules[27] on the prior authorization process and identify additional operating rules that are needed to support the full end-to-end workflow. To date, preliminary pilot data indicates that these new operating rules reduce staff time, improve the ease of completing a prior authorization request and increase staff satisfaction.[28]

Also in 2021, CAQH CORE plans on updating operating rules for eligibility and benefit verification to better support the dynamic needs of the healthcare industry. These updates will require plans and providers to include more detail than is generally exchanged by the HIPAA-mandated transaction including more service type codes, and support for telemedicine and tiered benefits. Additionally, VBP operating rules released in 2020 include requirements to indicate patient attribution status in the eligibility and benefits transaction. This detail will allow information on VBP enrollment to be sent at the time of service, alleviating a major pain point for providers who may not have real-time attribution information for patients under a VBP contract.

These government and industry efforts are intended to help streamline the administrative workflow and promote the use of electronic transactions. Ongoing efforts are needed to support the dynamic and complex needs of the industry.

**Capitalize and Expand on Progress Made to Date:** Progress continues to be made to increase adoption and reduce administrative burden. Initiatives set-forth by dental plans and providers are proving to be fruitful as the dental industry continues to steadily increase its use of electronic transactions and reduce the use of manual processing.

For the medical industry, prior authorization remains one of the most complex and burdensome transactions. Electronic adoption increased by eight percentage points, the highest increase in adoption among the medical transactions in the 2020 CAQH Index. This parallels public and private sector initiatives related to reducing the overall administrative burden associated with this transaction. These initiatives, along with portal costs and limitations, have encouraged use of the HIPAA-mandated electronic standard.

While the industry has made progress on initiatives and efforts to reduce administrative burden and foster the use of electronic transactions, there is work left to be done. Standards and operating rules exist today that can advance interoperability, enabling the industry to capitalize on the opportunities offered by automation. Industry stakeholders, healthcare leaders and policy makers should build on existing progress made across the administrative workflow when implementing updates and new standards to address emerging needs. It is important to keep the momentum moving forward and not lose ground on the achievements that have been made as business needs change and technology advances.

## How to Participate in the CAQH Index

The CAQH Index collects and tracks data for nine administrative transactions. In the 2020 CAQH Index, data submissions supported calculation of benchmarks for all nine transactions. All medical and dental plans, providers and vendors are encouraged to contributed data to the CAQH Index.

To participate in the 2021 CAQH Index and for more information, please email explorations@caqh.org.

26 Claire Mansbach,"Prior authorization pains growing for 9/10 physician practices," Medical Group Management Association, accessed January 6, 2020, https://www.mgma.com/data/data-/prior-authorization-pains-growing-for-9-10-physicians.

27 "Prior Authorization & Referrals Operating Rules," CAQH website, accessed January 12, 2021, https://www.caqh.org/core/prior-authorization-referrals-operating-rules.

28 "Prior Authorization Automation Case Study Webinar with Cleveland Clinic, PriorAuthNow & CAQH CORE," CAQH website, August 17, 2020, https://www. youtube.com/watch?v=gJCxjfKbdLk&list=PLGulir3D2LZSjqI2vTFMyPb.

# Methodology

## Introduction

The CAQH Index measures the adoption of electronic administrative transactions including volume, spend, cost avoided and the savings opportunity by switching from conducting manual and partially electronic to fully electronic transactions. The 2020 CAQH Index is the eighth annual report which collects data from medical and dental plans and providers covering roughly half of the insured United States population, according to enrollment reports from the AIS Directory of Health Plans and NADP Dental Health Plan Profiles.[29, 30]

## Recruitment

Medical and dental plans and providers were voluntarily recruited to the study using direct outreach through email and telephone, industry conferences, webinars, advertisements, the CAQH website and social media. CAQH managed recruitment for medical and dental plans while collaborating with NORC at the University of Chicago on the recruitment, data collection and analysis for medical and dental providers. Providers and plans included those that participated in the CAQH Index previously, as well as additional contacts from plan and provider organizations engaged with other CAQH initiatives. Additionally, NORC purchased lists of provider contacts to recruit provider participants.

CAQH partnered with CAQH member organizations, the CAQH Index Advisory Council, American Dental Association (ADA), National Dental Electronic Data Interchange Council (NDEDIC), Medical Group Management Association (MGMA), Healthcare Financial Management Association (HFMA), American Hospital Association (AHA) and the American Medical Association (AMA).

All CAQH Index participants are offered a benchmark report comparing their data to the aggregate industry results. Additionally, medical and dental providers were offered honorariums to increase responses and encourage participation to complete the survey.

## Data Collection

The CAQH Index collected data through a voluntary online survey tool from June to September 2020. A fillable PDF and Excel version of the survey were also offered to respondents. CAQH managed the development and data collection for medical and dental plans while NORC managed the survey process for medical and dental providers. Plan and provider data are representative of the 2019 calendar year, January 1 to December 31, 2019.

Enhancements to the 2020 CAQH Index plan survey focused on reducing burden to respondents by clarifying and simplifying transaction instructions, reducing the number of transactions reported in the survey and collecting additional insights on industry specific topics deemed relevant by the Index Advisory Council. Provider referral, enrollment/disenrollment and premium payment were removed from the 2020 survey due to recurring low volume reporting. A total of 10 transactions were included in the medical plan survey, and nine transactions in the dental plan survey, compared to 13 in the previous report (Table 5). The medical provider survey collected data on eight transactions, while the dental provider survey included six transactions.

The medical plan survey also included questions regarding:

- Member not found rate for eligibility and benefit verification.
- Number of claims paid in bulk for claim payment.
- Claim submission acceptance and denial rates.
- Experience with the Health Level 7® Fast Healthcare Interoperability Resources® (HL7 FHIR) standard.

29 AIS Health Data, a Division of Managed Markets Insight and Technology, LLC, AIS's Directory of Health plans: 2019, (2020).

30 "2019 Annual Report National Association of Dental Plans," Dental Benefits Report, NADP, January 4, 2021, https://www.nadp. org/docs/default-source/default-document-library/annual-report-2020_final. pdf?sfvrsn=6d243be1_0.

- Exchange of patient and provider attribution for value-based payment contracts.
- COVID-19 percent change in volume for all transactions.

For providers, this year's tool included the option to provide minutes and seconds for time questions to better reflect times close to zero. Additional questions were also added regarding provider attribution and the prior authorization process. Logic checks were included in the survey, such as a minimum for salaries which prompted an error if transaction volumes or times were outside reasonable bounds. If electronic times were three minutes or greater, then participants were asked to provide an explanation of the process.

The responses to these questions from plans and providers have provided context for a portion of the results in this report. Issue briefs on some of these topics will be released later this year.

**Table 5: Overview of Fully Electronic Administrative Transactions Studied, 2020 CAQH Index**

| Transaction | HIPAA Standard | Description |
|---|---|---|
| Eligibility and Benefit Verification† | ASC X12N 270/271 | An inquiry from a provider to a health plan, or from one health plan to another, to obtain eligibility, coverage or benefits associated with the health or benefit plan, and a response from the health plan to a provider. Does not include referrals. |
| Prior Authorization | ASC X12N 278 | A request from a provider to a health plan to obtain authorization for healthcare services; or a response from a health plan for an authorization. Does not include referrals. |
| Claim Submission | ASC X12N 837 | A request to obtain payment or transmission of encounter information for the purpose of reporting healthcare. |
| Attachments | ASC X12N 275, HL7 CDA* | Additional information submitted with claims for payment, claim appeals or prior authorization, such as medical records to support the claim or medical records to explain the need for a procedure or service. |
| Attachments (VBP) | | Medical information or quality measure documents that are submitted with payment under value-based payment (VBP) arrangements. |
| Acknowledgements | ASC X12N 277CA/999 | A health plan's response to a provider or provider's clearinghouse that they received information from the provider or clearinghouse; or confirmation received by a provider that the information shared with a health plan has been rejected or accepted. |
| Coordination of Benefits | ASC X12N 837 | Claims that are sent to secondary payers with explanation of payment information from the primary payer to determine remaining payment responsibilities. |
| Claim Status Inquiry† | ASC X12N 276/277 | An inquiry from a provider to a health plan to determine the status of a healthcare claim or a response from the health plan. |
| Claim Payment† | NACHA Corporate Credit or Deposit Entry with Addenda Record (CCD+) | An electronic funds transfer (EFT) from a health plan's bank to a provider's bank; including payment and data specific to the payment. |
| Remittance Advice† | ASC X12N 835 | The transmission of explanation of benefits or remittance advice from a health plan to a provider. |

† Both HIPAA standards and CAQH CORE Operating Rules are federally mandated.

* ASC X12N 275 and HL7 CDA are both industry recognized standards for electronic attachments.

Participating medical plans represented 167 million covered lives, or 51 percent of the United States enrolled population (Tables 6 and 7). They also accounted for two billion claims received and ten billion transactions annually. In comparison, participating dental plans represented 112 million covered lives and approximately 43 percent of the enrolled population. They represented 186 million claims received and a total of 740 million transactions.

All medical and dental plan data is based on medical/surgical and related healthcare claims and inquiries.

## Data Analyses

All results were aggregated to ensure data privacy from each participating organization or practice. Benchmarks were calculated and reported only for those transactions in which three or more plans or providers participated. Similar to the prior report, the following benchmarks were reported for each transaction:

**Adoption Rate –** The degree to which plans and providers complete transactions using fully electronic, partially electronic or manual modes.

**Estimated Volume –** The number of fully electronic, partially electronic and manual transactions reported by plans and providers weighted to a national level. For providers, the estimated volume is calculated using the average of the plan and provider mode distribution applied to the total estimated plan volume.

**Cost per Transaction –** The labor costs (e.g., salaries, wages, personnel benefits and related overhead costs) associated with fully electronic, partially electronic and manual transactions as reported by respondents. Costs include the labor time and cost associated with gathering information for the transaction and any follow-up. System costs are not included (e.g., maintaining, building or buying software or other equipment).

**Table 6: Basic Characteristics of Data Contributors, 2014-2020 CAQH Index**

| | 2014 Index | 2015 Index | 2016 Index | 2017 Index | 2018 Index | 2019 Index | 2020 Index |
|---|---|---|---|---|---|---|---|
| **MEDICAL** | | | | | | | |
| Plan Members (total in millions) | 112 | 118 | 140 | 155 | 160 | 154 | 167 |
| Proportion of Total Enrollment (%) | 42 | 45 | 46 | 51 | 49 | 47 | 51 |
| Number of Claims Received (total in billions) | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Number of Transactions (total in billions) | 4 | 4 | 5 | 6 | 8 | 8 | 10 |
| **DENTAL** | | | | | | | |
| Plan Members (total in millions) | N/R | 93 | 112 | 117 | 106 | 111 | 112 |
| Proportion of Total Enrollment (%) | N/R | 44 | 46 | 48 | 44 | 44 | 43 |
| Number of Claims Received (total in millions) | N/R | 158 | 173 | 182 | 177 | 185 | 186 |
| Number of Transactions (total in millions) | N/R | 439 | 564 | 650 | 731 | 726 | 740 |

N/R = Not Reportable

**Table 7: Annual Volume Reported by Medical and Dental Plans, 2019-2020 CAQH Index**

| Transaction | Number of Transactions (in millions) | | | | Number of Transactions (per member) | | | |
|---|---|---|---|---|---|---|---|---|
| | 2019 INDEX | | 2020 INDEX | | 2019 INDEX | | 2020 INDEX | |
| | MEDICAL | DENTAL | MEDICAL | DENTAL | MEDICAL | DENTAL | MEDICAL | DENTAL |
| Eligibility and Benefit Verification | 4,155 | 186 | 4,681 | 168 | 30 | 2 | 33 | 2 |
| Prior Authorization | 24 | N/R | 34 | N/R | <1 | N/R | <1 | N/R |
| Claim Submission | 1,690 | 185 | 2,010 | 186 | 11 | 2 | 12 | 2 |
| Attachments | 45 | 5 | 62 | 5 | 1 | N/R | <1 | <1 |
| Acknowledgements | N/R | N/R | 1,055 | N/R | N/R | N/R | 10 | N/R |
| Coordination of Benefits | 28 | N/R | 78 | N/R | <1 | N/R | <1 | N/R |
| Claim Status Inquiry | 359 | 80 | 384 | 65 | 4 | 1 | 4 | 1 |
| Claim Payment | 198 | 153 | 242 | 155 | 1 | 1 | 2 | 1 |
| Remittance Advice | 1,197 | 117 | 1,636 | 161 | 10 | 1 | 10 | 1 |
| **Total Transactions** | **7,696** | **726** | **10,182** | **740** | **57** | **7** | **71** | **7** |

N/R = Not Reported

**Estimated Spend –** The amount spent on conducting a transaction by modality (fully electronic, partially electronic or manual).

**Cost Avoided –** The amount that has been saved by not conducting transactions through manual processes.

**Potential Cost Savings –** The savings that could be achieved by switching the remaining manual and partially electronic transactions to fully electronic transactions.

Estimated spend, cost avoided and potential cost savings are estimated at a national level using the plan enrollment numbers, estimated transaction volumes and the weighted cost per transaction by mode from plans and providers.

**Provider Potential Time Savings –** The time to conduct a transaction for providers is estimated using the average time required to conduct fully electronic, partially electronic and manual transactions as reported by medical and dental providers.

A total of nine medical and six dental transactions are benchmarked in the 2020 CAQH Index (Table 8).

## ADOPTION RATE

Adoption rates are calculated using only medical and dental plan reported volumes. Transaction adoption is classified into three modes:

**Fully Electronic –** Transactions conducted using a HIPAA-mandated standard, unless otherwise specified.

**Partially Electronic –** Transactions conducted using web portals and interactive voice response (IVR) systems.

**Fully Manual –** Transactions requiring end-to-end human interaction such as telephone, mail, fax and email.

Medical and dental plan adoption rates were calculated by mode as a proportion of the total volume reported by plans. The annual percentage point change was included for transactions with at least two years of trended data available and is computed as the

**Table 8: Overview of Reported Data and Benchmarks per Transaction, 2020 CAQH Index**

| Transaction | Adoption | | Cost per Transaction | | Estimated National Potential Cost Savings and Spending | | Time per Transaction for Providers | | First Index Report Year Studied | |
|---|---|---|---|---|---|---|---|---|---|---|
| | MEDICAL | DENTAL | MEDICAL | DENTAL | MEDICAL | DENTAL | MEDICAL | DENTAL | MEDICAL | DENTAL |
| Eligibility and Benefit Verification | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 2013 | 2015 |
| Prior Authorization | ♦ | No Benchmark Reported (Insufficient Data) | ♦ | | ♦ | | ♦ | | 2013 | |
| Claim Submission | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 2013 | 2015 |
| Attachments | ♦ | ♦ | ♦ | | ♦ | | ♦ | | 2014 | 2016 |
| Acknowledgements | ♦ | No Benchmark Reported (Insufficient Data) | | | | | | | 2017 | |
| Coordination of Benefits | ♦ | No Benchmark Reported (Insufficient Data) | ♦ | | ♦ | | | | 2015 | |
| Claim Status Inquiry | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 2013 | 2015 |
| Claim Payment | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 2013 | 2015 |
| Remittance Advice | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | ♦ | 2013 | 2016 |

arithmetic difference between percentages reported in this report and the 2019 CAQH Index.

## ESTIMATED VOLUME

### Plan Estimated Volume

The total transaction volume is estimated based on the proportion of covered lives represented by participating medical and dental plans using the AIS Directory of Health Plans for medical plans and NADP Dental Health Plan Profiles for dental plans.[31,32] The proportion represented by each transaction can vary depending on each data contributor's ability to report on a transaction. The extrapolated national volume for each transaction is calculated by mode as follows for both medical plans and dental plans:

$$\text{Extrapolated Plan Volume (per modality)} = \frac{\text{Volume Reported by Plans}}{\text{Percent of Covered Lives Represented by CAQH Data Contributors}}$$

31 AIS Health Data, a Division of Managed Markets Insight and Technology, LLC, AIS's Directory of Health plans: 2019, (2020).

32 "2019 Annual Report National Association of Dental Plans," Dental Benefits Report, NADP, January 4, 2021, https://www.nadp. org/docs/default-source/default-document-library/annual-report-2020_final. pdf?sfvrsn=6d243be1_0.

### Provider Estimated Volume

The total transaction volume is estimated based on the size and type of provider using the American Medical Association (AMA) distributions of physicians by practice size and type of location and the American Dental Association (ADA) distributions of dental practice type.[33,34] Medical providers were split into four groups: Less than 5 physicians, 5-10 physicians, 25-49 physicians and hospitals based on the reported data. Dental providers were split into three groups: Non-DSO affiliated group practice, Non-DSO affiliated solo practice and DSO affiliated group, solo practice. Unlike the previous report, volume this year was calculated using the average mode distribution by transaction/processing type and by AMA or ADA group size. The AMA and ADA distributions were used to weight the mode distributions reported by medical and dental providers. These weighted distributions by mode were applied to the national estimated plan volume to calculate the national provider estimated volume by mode.

Extrapolated Provider Volume (per modality) =

Total Plan Estimated Volume for a Given Transaction * Provider Modality Distribution

The industry estimated volume for each transaction is the sum of the plan estimated volume and the provider estimated volume for each mode.

## COST PER TRANSACTION

Cost per transaction was computed for each transaction by mode using weighted averages based on volume of enrollment for plans and time and salary of staff conducting transactions for providers. Transaction costs are reported for fully electronic, partially electronic and manual transactions for medical and dental plans and providers when available depending on sample size.

For medical plans and dental plans, the cost per transaction by mode is a weighted average based on the data submitted by contributors reporting a valid result using the proportion of their enrollment. The calculation requires both the reporting of a valid transaction volume and transaction cost by a data contributor to be included in the weighted average cost.

For medical and dental providers, weighted average costs per transaction by mode were calculated by NORC based on transaction type and average staff time and cost by transaction and mode.

The NORC methodology followed a three-step process:

1. A loaded salary per minute by transaction mode for each provider is created by dividing the salary by the number of minutes in a work year then multiplying by a specified loading factor to account for benefit and overhead costs.
2. The loaded cost per transaction mode by provider created in step one is multiplied by the number of minutes per transaction by mode.
3. The estimates by provider in step two were combined using a simple average within the practice size categories (four group categories for AMA and three group categories for ADA). The practice size estimates were then multiplied by the adjusted proportions for the medical and dental industry to create weighted group cost estimates. Finally, the weighted group cost estimates were summed to create the overall weighted cost per transaction for each transaction and mode.

## ESTIMATED SPEND, COST AVOIDED AND POTENTIAL SAVINGS

### Estimated Spend

Estimated spend is calculated by multiplying the estimated volume per mode by its respective weighted cost per transaction for medical and dental plans and providers within a transaction (Table 9). The total spend per transaction is equal to the sum of spend for each modality per transaction for medical and dental plans and providers.

33 Carol K. Kane, "Updated Data on Physician Practice Arrangements: For the First Time, Fewer Physicians are Owners Than Employees," American Medical Association, accessed January 8, 2021, https://www.ama-assn.org/ system/files/2019-07/prp-fewer-owners-benchmark-survey-2018.pdf.

34 Dentist Profile Snapshot by State: 2016, accessed January 8, 2021, https:// www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/ HPIData_ Profile_2016.xlsx?la=en.

**Table 9: Estimated Medical and Dental Spend and Savings Opportunity, 2020 CAQH Index (in millions)**

| | Manual Spend* | Estimated Spend | Savings Opportunity | Electronic Spend* | Cost Avoided |
|---|---|---|---|---|---|
| MEDICAL | | | | | |
| Eligibility and Benefit | $ 101,470 | $ 15,820 | $ 6,744 | $ 9,076 | $ 85,650 |
| Prior Authorization | $ 1,249 | $ 767 | $ 417 | $ 350 | $ 481 |
| Claim Submission | $ 14,506 | $ 5,522 | $ 522 | $ 5,000 | $ 8,984 |
| Claim Attachment | $ 737 | $ 589 | $ 377 | $ 213 | $ 148 |
| Coordination of Benefit | $ 206 | $ 55 | $ 19 | $ 35 | $ 151 |
| Claim Status Inquiry | $ 16,392 | $ 3,773 | $ 2,319 | $ 1,454 | $ 12,619 |
| Claim Payment | $ 2,110 | $ 1,147 | $ 426 | $ 720 | $ 963 |
| Claim Remittance | $ 13,931 | $ 5,699 | $ 2,497 | $ 3,203 | $ 8,232 |
| **Total** | **$ 150,601** | **$ 33,372** | **$ 13,321** | **$ 20,051** | **$ 117,228** |
| DENTAL | | | | | |
| Eligibility and Benefit | $ 4,017 | $ 1,354 | $ 764 | $ 590 | $ 2,663 |
| Claim Submission | $ 1,774 | $ 880 | $ 263 | $ 617 | $ 894 |
| Claim Status Inquiry | $ 1,892 | $ 1,060 | $ 809 | $ 251 | $ 831 |
| Claim Payment | $ 1,258 | $ 1,040 | $ 472 | $ 568 | $ 218 |
| Claim Remittance | $ 1,826 | $ 1,342 | $ 684 | $ 657 | $ 484 |
| **Total** | **$ 10,767** | **$ 5,676** | **$ 2,992** | **$ 2,683** | **$ 5,090** |
| MEDICAL AND DENTAL INDUSTRY | | | | | |
| **Total** | **$ 161,368** | **$ 39,048** | **$ 16,313** | **$ 22,734** | **$ 122,318** |

*Spending if all transactions were conducted manually or fully electronically.

## Estimated Cost Avoided

The estimated cost avoided is the arithmetic difference between the spend if all transactions were conducted manually and the total estimated spend by transaction. The total manual spend per transaction was computed by multiplying the estimated national volume of all modalities by the manual cost per transaction for medical and dental plans and providers.

## Estimated Savings Opportunity

The potential savings opportunity for switching from manual to fully electronic transactions is calculated by multiplying the estimated national volume of manual transactions by the cost per transaction difference between fully electronic and manual transactions for each transaction. The potential savings opportunity for switching from partially electronic to fully electronic transactions is calculated by multiplying the estimated national volume of partially electronic transactions by the cost per transaction difference between the fully electronic and partially electronic transactions for each transaction.

## PROVIDER POTENTIAL TIME SAVINGS

The potential time savings per transaction was estimated using the average time required by medical and dental providers to conduct fully electronic, partially electronic and manual transactions (Tables 10 and 11).

**Table 10: Average, Minimum and Maximum Provider Time Spent Conducting Transactions, Medical, 2020 CAQH Index**

| Transaction | Mode | Average Time Providers Spend per Transaction (minutes) | Min Time Providers Spend per Transaction (minutes) | Max Time Providers Spend per Transaction (minutes) | Average Time Saving (minutes) |
|---|---|---|---|---|---|
| Eligibility and Benefit Verification | Manual | 13 | 2 | 45 | 11 |
| | Partial | 5 | 1 | 10 | 3 |
| | Electronic | 2 | 0 | 5 | |
| Prior Authorization | Manual | 20 | 2 | 60 | 12 |
| | Partial | 13 | 1 | 31 | 5 |
| | Electronic | 8 | 1 | 22 | |
| Claim Submission | Manual | 5 | 1 | 14 | 3 |
| | Electronic | 2 | 0 | 6 | |
| Attachments | Manual | 11 | 1 | 30 | 8 |
| | Electronic | 3 | 0 | 10 | |
| Claim Status Inquiry | Manual | 19 | 5 | 65 | 17 |
| | Partial | 6 | 1 | 15 | 4 |
| | Electronic | 2 | 0 | 5 | |
| Claim Payment | Manual | 6 | 1 | 15 | 4 |
| | Electronic | 2 | 0 | 10 | |
| Remittance Advice | Manual | 8 | 0 | 25 | 6 |
| | Partial | 5 | 2 | 15 | 3 |
| | Electronic | 2 | 0 | 6 | |
| **Total Potential Time Savings (Manual)** | | | | | **61** |
| **Total Potential Time Savings (Partial)** | | | | | **15** |

Note: All participants were asked to report time by the three modes of completion (manual, partially electronic and fully electronic). For some transactions, partial time was not reported.

**Table 11: Average, Minimum and Maximum Provider Time Spent Conducting Transactions, Dental, 2020 CAQH Index**

| Transaction | Mode | Average Time Providers Spend per Transaction (minutes) | Min Time Providers Spend per Transaction (minutes) | Max Time Providers Spend per Transaction (minutes) | Average Time Saving (minutes) |
|---|---|---|---|---|---|
| Eligibility and Benefit Verification | Manual | 13 | 1 | 40 | 10 |
| | Partial | 7 | 1 | 16 | 4 |
| | Electronic | 3 | 0 | 6 | |
| Claim Submission | Manual | 6 | 0 | 17 | 4 |
| | Electronic | 2 | 0 | 6 | |
| Claim Status Inquiry | Manual | 17 | 1 | 36 | 14 |
| | Partial | 7 | 1 | 17 | 4 |
| | Electronic | 3 | 0 | 10 | |
| Claim Payment | Manual | 6 | 0 | 19 | 3 |
| | Electronic | 3 | 0 | 8 | |
| Remittance Advice | Manual | 9 | 0 | 21 | 6 |
| | Partial | 6 | 1 | 19 | 3 |
| | Electronic | 3 | 0 | 10 | |
| **Total Potential Time Savings (Manual)** | | | | | **37** |
| **Total Potential Time Savings (Partial)** | | | | | **11** |

Note: All participants were asked to report time by the three modes of completion (manual, partially electronic and fully electronic). For some transactions, partial time was not reported.

## Limitations

Like the previous report, some over-counting and under-counting may exist.

- Transactions may be initiated from a provider as a fully manual transaction and then converted by a practice management system into a fully electronic transaction. The CAQH Index would ultimately report this only as a fully electronic transaction from the plan.
- When providers call into a call center, the representative may respond to multiple inquiries within a single phone call rather than reporting each distinct transaction resulting in under-reporting by the CAQH Index.

No direct relationships should be inferred between or among the volumes of transactions.

- Some claim submissions reported to the CAQH Index may not be requests for payment since only a few plans can distinguish claim submissions that are requests for payment from encounter reports versus claim submissions that are only transmissions of encounter information.

- There may be a range of administrative transactions reported to the CAQH Index with no corresponding claim payment transaction since there is no corresponding payment due from the health plan after adjudication, such as when a patient is meeting the annual deductible.
- Some eligibility and benefit transactions reported to the CAQH Index may never result in a claim submission or claim payment, since some practice management systems make periodic eligibility and benefit verification requests that are not connected to patient encounters.

The CAQH Index tracks only direct costs.

- The cost and savings reported represent only the labor time required to conduct the transaction. They do not include the time and cost associated with gathering information for the transactions. System costs including costs associated with using clearinghouses or third-party vendors are excluded from the cost and savings estimates.

Sample variation may impact some transaction cost trends from year to year.

- Medical and dental provider costs to conduct a transaction reflect only a snapshot in time for the specific group of providers participating in the CAQH Index each year. Sampling factors such as salary, learning curve for a new employee to process a transaction and the mix of specialty type may impact the trending of data.

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| 2020 CAQH Index Advisory Council Member | Organization |
|---|---|
| Krishna Aravamudhan | American Dental Association |
| John Bialowicz | Blue Cross Blue Shield of Michigan |
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Note: To ensure data privacy, CAQH does not make the list of health plan or provider data contributors available.

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