CAQH Insights℠

2023 CAQH Index® Report

A New Normal: How Trends From the Pandemic are Impacting the Future of Healthcare Administration

The CAQH Index is the industry source for tracking health plan and provider adoption of fully electronic administrative transactions and the opportunity for future savings.

Overview

As the industry moves past the coronavirus (COVID-19) pandemic, plans and providers have continued to work together through both persistent and emerging obstacles in the administration of healthcare delivery.[1,2] Past analyses have estimated that approximately 10 percent ($400 billion) of National Healthcare Expenditures in the U.S. are related to administrative complexity.[3,4] Data from the 2023 CAQH Index found that $89 billion (approximately 22 percent), is spent conducting administrative transactions tracked by the CAQH Index. Of the $89 billion, the industry can save $18.3 billion by transitioning to fully electronic transactions. This cost savings opportunity comprises roughly five percent of the cost of administrative complexity in the U.S. healthcare system.

While the medical and dental industries have already avoided $193 billion annually by automating administrative transactions, overall spending continues to rise as time to complete tasks continues to increase. A "new normal" for the U.S. healthcare system is emerging characterized by staffing shortages, hybrid work environments, increased cybersecurity threats and the emergence of machine learning which will be monitored to identify challenges associated with the administrative workflow.[5,6,7]

This annual report, the eleventh produced by CAQH, measures national progress in reducing the costs associated with conducting administrative transactions in the healthcare industry for medical and dental plans and providers. The CAQH Index tracks the adoption of Health Insurance Portability and Accountability Act (HIPAA) mandated transactions, as well as other administrative tasks related to the patient encounter, such as verifying coverage, obtaining prior authorization and attaching supplemental information.

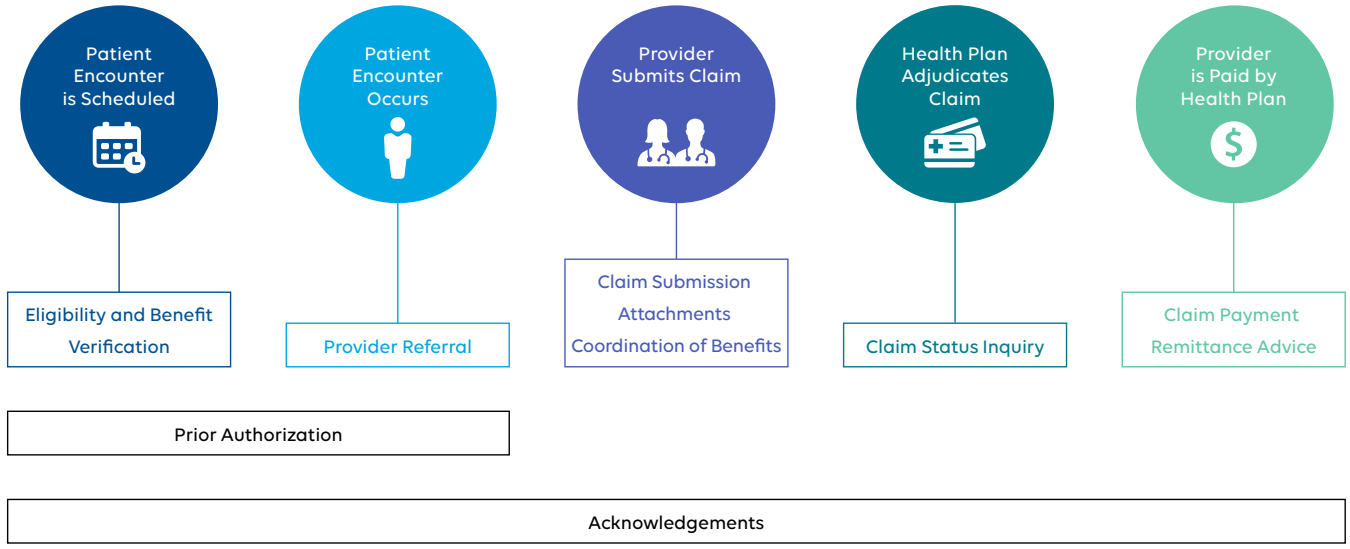
The Administrative Workflow

A medical or dental encounter includes a series of administrative tasks that begins with scheduling a visit and ends with payment for services. The CAQH Index collects detailed information on how administrative transactions are conducted - including fully electronic, partially electronic and manually.

The research also addresses how many transactions are conducted, as well as the processing cost, and time.

By tracking automation, the industry can work together to identify inefficiency and target areas for improvement.

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.

Contents

CAQH Insights℠

Key Findings

In 2022 after COVID-19 stressed healthcare systems, the healthcare industry began to adjust to a "new normal" characterized by changed social behaviors, policies and workflows.[8] Utilization began to stabilize as pent-up demand to schedule appointments and procedures lessened after an increase in utilization the previous year. Hybrid work models became the norm, fostering the continued use and growth of automated workflows. Threats to electronic infrastructures, however, heightened concerns as health plans reported the need for increasing resources to respond to automated entities ("bots") and phishing attempts[9] which impacted cost and time to conduct transactions. Staffing shortages continued to impact the time to conduct administrative tasks, especially for providers.

While the use of electronic workflows has continued to grow and provide the opportunity for savings, provider time to complete many administrative tasks also increased, accounting for more than 75 percent of the rise in total spend. Ongoing staffing issues, often due to burnout, retirement and turnover,[10,11,12] often resulted in less experienced staff being hired, impacting time to learn and complete tasks. New employees often required more time to understand processes and requirements. Despite the increase in provider time and overall spend on administrative tasks, the medical and dental industries avoided $193 billion annually by automating administrative transactions.

To continue to benefit from the progress the industry has made automating workflows, the "new norm" must consider the impact of persistent staffing issues and security challenges on the administrative workflow. Use of emerging technology such as machine learning and artificial intelligence (AI)[13] should be considered to assist with administrative tasks and monitored for potential security issues and other negative impacts.[14,15] Understanding evolving trends and challenges associated with the administrative workflow will be necessary as the industry works to establish and accommodate a new normal for plans, providers and patients.

Key Terms and Financial Metrics

Below are the primary metrics reported for each transaction in the 2023 CAQH Index report.

Key Terms

Adoption

Adoption rates are calculated using only medical and dental plan reported volumes.

Estimated Volume

The number of fully electronic, partially electronic and manual transactions reported by medical and dental plans and providers weighted to a national level.

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 (Manual)

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

Financial Metrics

Cost Per Transaction

The labor costs (e.g., salaries, wages, personnel benefits and related overhead) associated with full electronic, partially electronic and fully manual transactions . 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. Costs do not include system costs (e.g., maintaining, building or buying software or other equipment).

Estimated Spend

The amount that medical and dental plans and providers spend conducting a transaction in total and by modality.

Cost Avoided

The amount that medical and dental plans and providers have saved by not conducting transactions using partially electronic or fully manual modes.

Cost Savings Opportunity

The cost savings that could be achieved by switching the remaining partially electronic and fully manual transactions to fully electronic transactions.

Time Savings Opportunity

The time that providers could save by switching the remaining partially electronic and fully manual time to conduct a transaction to a fully electronic time.

Adoption

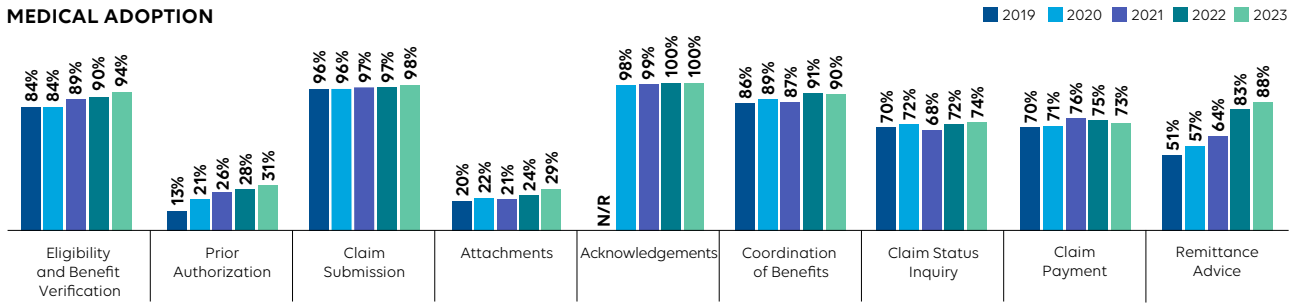
Electronic adoption improved or remained stable for all **medical** transactions except claim payment and coordination of benefits and improved or remained stable for all **dental** transactions. Both industries continued to make progress towards a more automated administrative workflow.

+2

percentage points

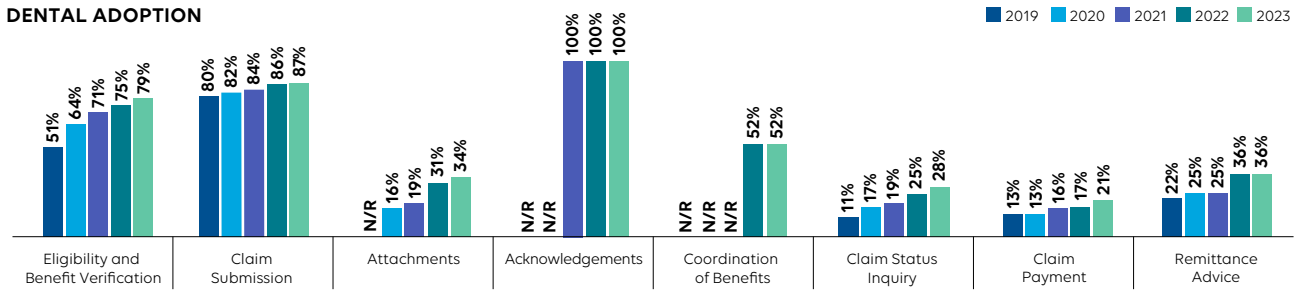
The average increase in adoption across both industries. This is down from the previous year.

Medical Plan Adoption of Fully Electronic Administrative Transactions 2019-2023 CAQH Index



N/R = Not Reported

Dental Plan Adoption of Fully Electronic Administrative Transactions 2019-2023 CAQH Index



N/R = Not Reported

Volume

Medical and **dental** administrative transaction volume **increased**. While the increase in **medical** volume was not as drastic as the previous year, overall transaction volume for **both** industries continued to grow after dropping in 2020 due to COVID-19.

Electronic volume **increased** for the **medical** (14 percent) and **dental** industries (21 percent) and continues to account for the highest percentage of total volume, 85 and 56 percent, respectively.

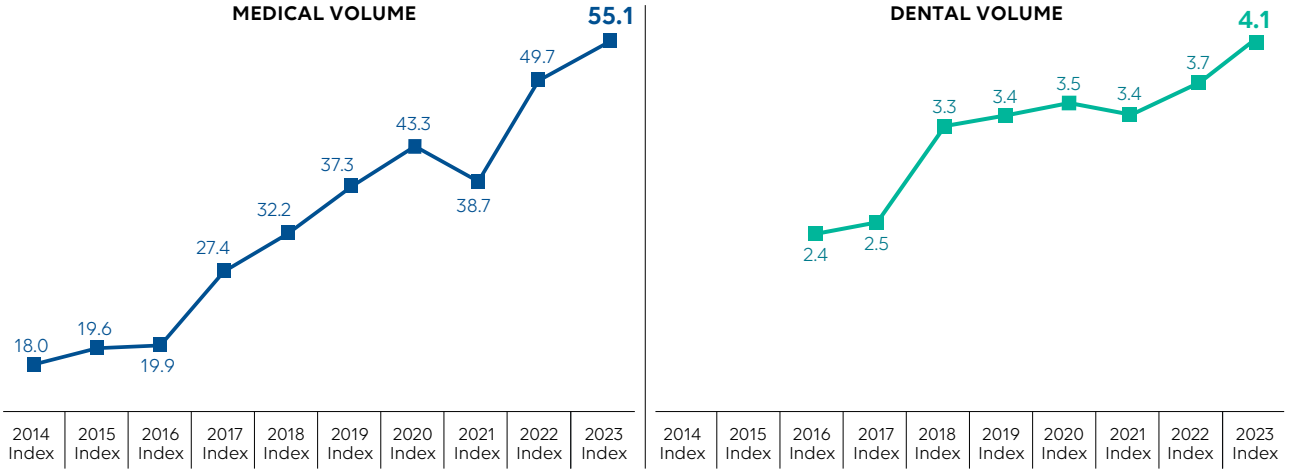
+11%

increase in overall **medical** transaction volume

+9%

increase in overall **dental** transaction volume

Medical and Dental Industry Estimated National Volume 2014-2023 CAQH Index (in billions)



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

Spend

Consistent with previous years, staffing shortages and higher transaction volumes resulted in **higher** spend for **both** industries. For the **medical** industry, provider time to conduct transactions increased, on average, 14 percent which accounted for 77 percent of the increase in total medical spend. For the **dental** industry, provider time to conduct transactions increased, on average, 22 percent which accounted for 95 percent of the increase in total dental spend.[16]

+18% to

$6.3B

The total amount **dental** spending **increased**

Largest increase in spend: eligibility and benefit verification (45 percent).

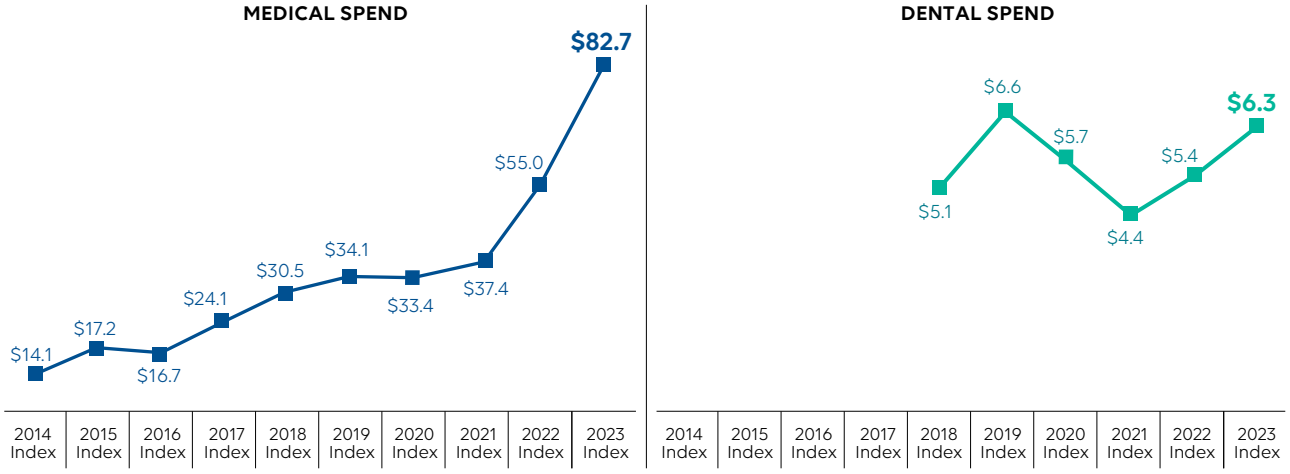
+50% to

$82.7B

The total amount **medical** spending **increased**

Largest increase in spend: claim status inquiry (71 percent).

Medical and Dental Industry Estimated National Spend 2014-2023 CAQH Index (in billions)



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

Cost Savings Opportunities

The cost savings opportunity **dropped** for the **medical** (26 percent) and **dental** (26 percent) industries as the gap between provider manual and electronic costs decreased and electronic adoption increased.[17] Providers accounted for 93 percent of the annual cost savings opportunity for the medical industry and 81 percent for the dental industry.

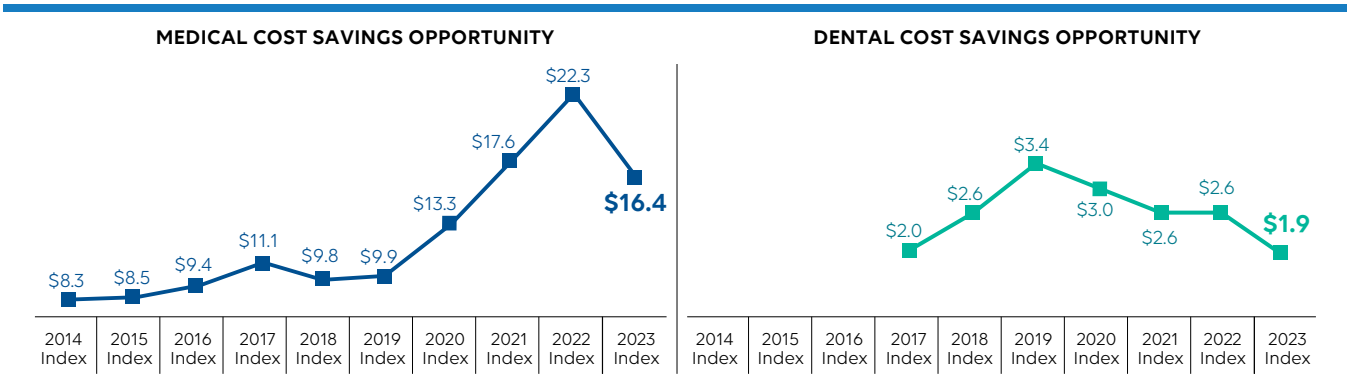
The **medical** industry cost savings opportunity **decreased** to

$16.4B

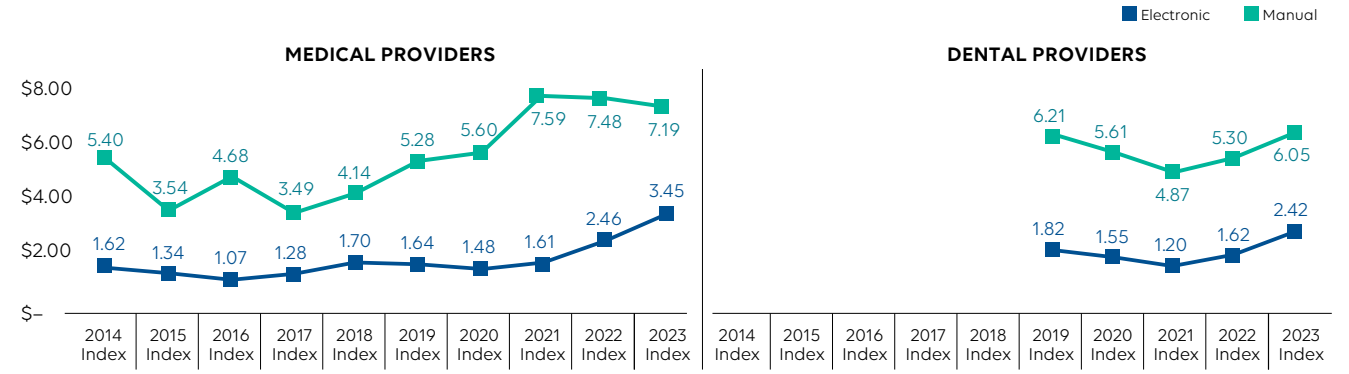
The **dental** cost savings opportunity **decreased** to

$1.9B

Medical and Dental Industry Estimated National Cost Savings Opportunity 2014-2023 CAQH Index (in billions)



Medical and Dental Provider Average Cost per Transaction for Electronic and Manual Transactions 2014-2023 CAQH Index



Industry Call to Action

In 2022, the healthcare industry began adjusting to a "new normal" as the public health emergency started to subside and utilization started to stabilize. Automated processes that increased during COVID-19 continued to grow as hybrid work models[18] supported the use of electronic workflows. Efficiencies gained through automated processes were challenged, however, as cyber threats and ongoing staffing issues impacted the time to complete administrative tasks and overall spend.

To support the progress made and reduce administrative burden in the "new normal", CAQH proposes the industry take the following actions:

Continue Advancing Automation with an Eye Towards New Opportunities and Threats

Use of electronic workflows to complete administrative tasks increased for both industries as processes implemented and supported during the pandemic continued. Automated tasks provided flexibility to staff as work environments changed and adapted to a new normal. Despite the increase in electronic transactions and decrease in manual ones, overall spending on administrative tasks grew due to persistent staffing challenges impacting the time to conduct tasks.

While provider time to complete tasks and overall spend rose, the medical and dental industries avoided $193 billion annually by automating administrative transactions and adopting HIPAA standards. As some transactions approach full adoption, efforts should focus on maintaining and improving adoption concentrating on transactions with high savings opportunities, such as eligibility and benefit verifications and claim submissions. Understanding and addressing issues that providers and plans face when automating workflows is necessary as new opportunities and challenges arise related to AI, cyber security and phishing that could impact systems or processes and continued progress.

Identify Time Saving Opportunities for Providers

Given medical and dental providers account for over 90 percent of the total annual spend[19] and over 80 percent of the overall annual cost savings opportunities,[20] understanding and focusing on provider challenges is needed. Staffing pressures brought on by the pandemic have not subsided. One recent study found that almost 150,000 providers left the profession in 2022.[21] Increases in staff turnover and difficulties hiring replacements continued to place pressure on the administrative workflow. For the second consecutive year, time to complete electronic transactions grew.[22]

As staffing concerns are expected to continue,[23] the industry needs to work together to identify solutions and best practices for time savings. Online learning modules, forums and courses related to conducting administrative transactions and understanding requirements, standards and operating rules should be promoted along with industry events where best practices and challenges can be discussed. New staff orientations should incorporate trainings to help ease the learning curve and support efficiencies. Given the ongoing pressures on our provider delivery system, payers should prioritize initiatives to align on common administrative work flows to eliminate duplicative plan-specific processes. Alignment on administrative processes will simplify provider education and training and reduce the time to complete administrative tasks.

Understand Emerging Technologies

As automation grows, persistent and advanced threats to electronic infrastructures are becoming more common. Cybersecurity threats to hospitals and health systems are on the rise.[24] The security infrastructure needed to counter and recover from malicious agents is expected to continue adding to the cost to conduct administrative transactions. Preparing for these threats is needed to minimize disruptions in processes and patient care.

In addition to understanding cyber threats, the industry must also start to examine the potential benefits and challenges of AI tools as they relate to conducting administrative tasks. Health plans and providers have begun using AI to help identify patient eligibility, review x-rays, identify coding errors and automate pre-approvals.[25,26,27] Questions on how to best implement AI technology and its impact on workflows and healthcare delivery need to be considered.

While the industry continued to make progress towards a more automated administrative workflow, staffing turnover and shortages impacted time to complete tasks and overall spend. Cybersecurity risks became more prominent, resulting in health plans devoting additional resources to security, new servers and maintenance. Despite continual workforce issues and new threats, the introduction and use of machine learning and AI tools may help reduce administrative burden and should be monitored moving forward. As health plans, providers and patients adjust to a post pandemic new normal, industry will need to collaborate and remain flexible in order to identify opportunities and best practices, and respond to emerging and consistent challenges and business needs.

Transaction Findings

Eligibility and Benefit Verification

Definition:

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 plan and a response from the health plan to the provider. HIPAA Transaction Standard: ASC X12N 270/271.

Transaction Highlights

1 Adoption Increased – Among the Highest

Adoption of the electronic eligibility and benefit verification transaction increased four percentage points for the medical industry, one of the largest increases, after only rising one percentage point in the previous year. One national health plan indicated that adoption increased due to an initiative to promote and encourage the use of the 270/271 transaction. Electronic adoption also increased for the dental industry, four percentage points – the highest among dental transactions. Dental associations such as NDEDIC have been promoting the growth and adoption of electronic eligibility benefit inquiries through the HIPAA standard.[28]

While adoption is increasing, dental providers still use portals because the 270/271 transaction does not contain some needed dental information such as coverage at the procedure code level via the American Dental Association (ADA) CDT codes. Additionally, dental providers specify the need for details on items such as missing tooth limitations, waiting periods, frequency limitations and age limitations at the procedure level.

2 Volume Increased – Highest for Both Industries

As medical utilization began to stabilize after an uptick last year, overall eligibility and benefit verification volume increased for the medical and dental industries, 18 and 20 percent, respectively, and continues to be the highest volume transaction. Eligibility and benefit verification accounts for 54 percent of all medical administrative transactions and 24 percent of the total dental volume. Plans in both industries indicated that the increase in volume is due, in part, to the presence of automated external entities (i.e. "bots") that repeatedly ping servers.

3 Spending Increased – Highest for Dental

Persistent labor pressures within the healthcare industry are increasing the time and the cost to complete administrative transactions.[29] Subsequently, medical spending on eligibility and benefit verification increased 60 percent to $43 billion. This is the third highest growth rate after claim submission and claim status inquiry and represents the largest share of annual medical spend, 51 percent. The jump in spending was driven by an increase in time to complete electronic transactions.

Similarly, dental spending increased 45 percent to $1.8 billion – the highest growth among transactions – which accounted for the largest percent of annual dental spend, 29 percent. Medical and dental plans indicated that in response to bots and phishing activities, resources have been devoted to increasing server size and monitoring server traffic.

Due to the progress made to adopt the 270/271 standard transaction, the medical and dental industries have avoided considerable annual costs, $146 billion and $3.5 billion, respectively.

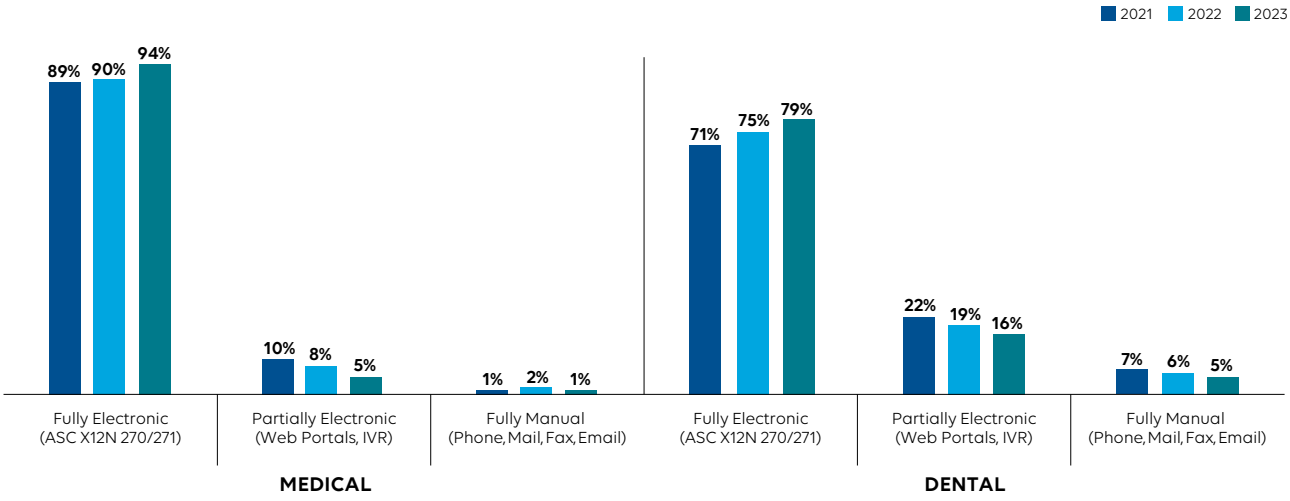
4 Cost Savings Opportunity Decreased

The potential savings associated with greater electronic eligibility and benefit verification decreased 28 percent for the medical industry to $9.3 billion and 19 percent for the dental industry to $540 million as adoption of electronic verifications grew. This remains the top savings opportunity for both industries.

When looking at costs to complete eligibility and benefit verifications by medical provider types, both specialists and behavioralists reported, on average, higher manual costs compared to generalists – twice as high. More specialized and costly services may require timely phone calls and additional verification checks.

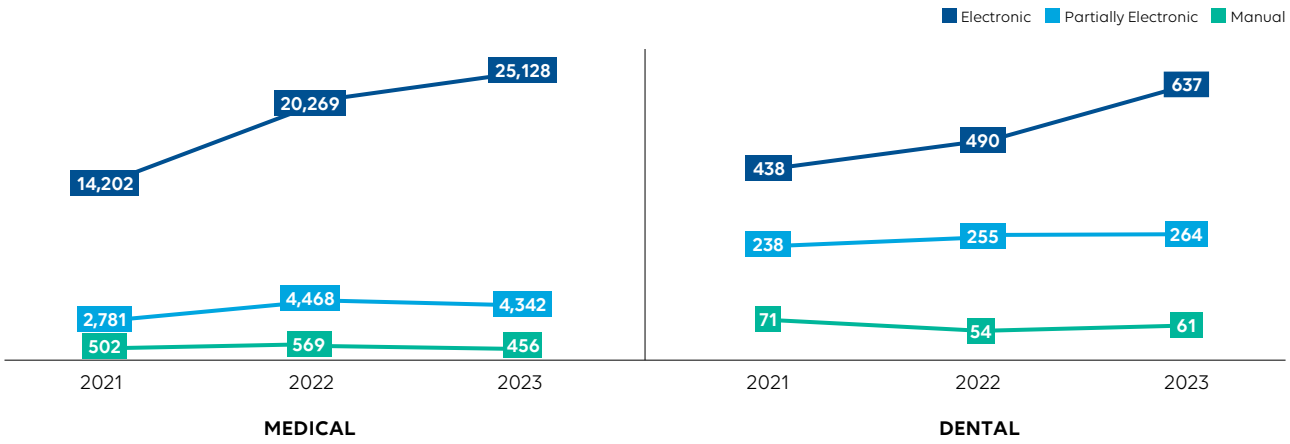
Adoption

Medical and Dental Plan Adoption of Eligibility and Benefit Verification
2021-2023 CAQH Index



Volume

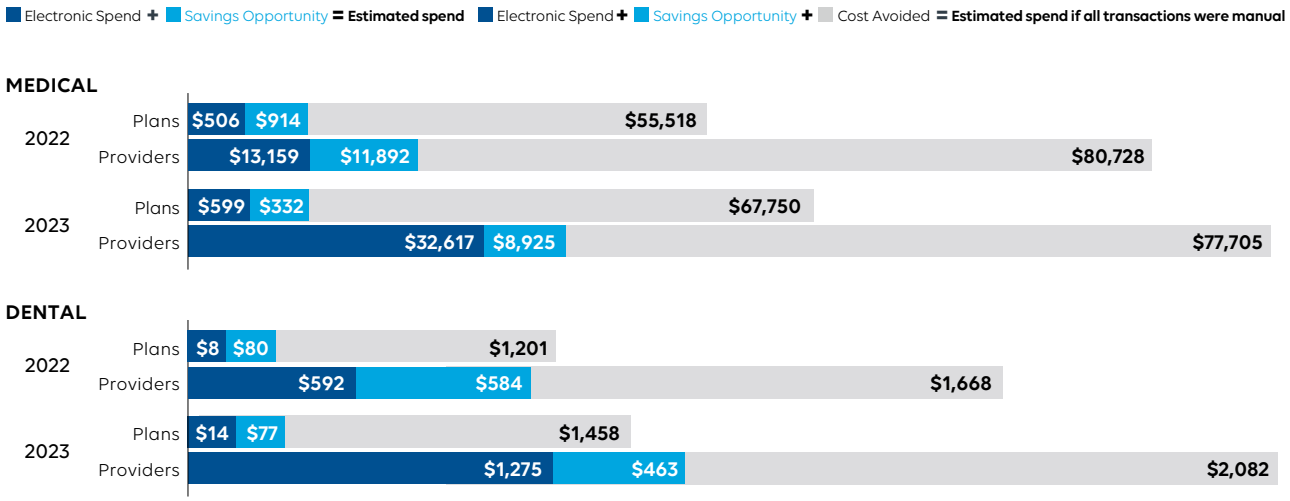
Estimated National Volume of Eligibility and Benefit Verification by Mode 2021-2023 CAQH Index (in millions)



Note: Data represents plans and providers.

Spend & Savings

Eligibility and Benefit Verification: How Much is Spent and Saved With Full Adoption? 2022-2023 CAQH Index (in millions)



Note: May not be drawn to scale.

Cost Savings Opportunity

Electronic Eligibility and Benefit Verification: Cost Savings Opportunity

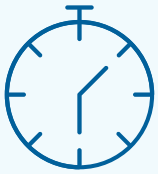
$9.8 Billion in Cost Savings Opportunity Annually for the Medical and Dental Industries Combined

Medical Industry: **$9.3B**

Dental Industry: **$540M**

Time Savings Opportunity

Electronic Eligibility and Benefit Verification: Time Savings Opportunity



Average Time Savings Opportunity (per transaction):

Medical Providers: **16 Minutes**

Dental Providers: **9 Minutes**

Updates to the CAQH CORE Eligibility & Benefits (270/271) Operating Rules

In June 2023, the National Committee on Vital and Health Statistics (NCVHS) recommended the Department of Health and Human Services (HHS) adopt updated versions of the CORE Eligibility & Benefits (270/271) Data Content and Infrastructure Rules for federal mandate under HIPAA. NCVHS also recommended adoption of a new rule - the CORE Eligibility & Benefits Single Patient Attribution Data Content Rule. Together, these new and updated operating rules address emerging industry needs by requiring eligibility information related to telemedicine, prior authorization, remaining coverage benefits, tiered benefits, procedure-level detail, and attribution status under a value-based contract, among other advantages. If HHS supports the NCVHS recommendation, an Interim Final Rule (IFR) will be issued with a public comment period. Once HHS finalizes the rule, industry stakeholders have 25 months to implement the newly mandated operating rules.

Prior Authorization

Definition:

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. HIPAA Transaction Standard: ASC X12N 278.

Transaction Highlights

1 Medical Adoption Increased

Although adoption of prior authorization remains one of the lowest among the medical transactions, it grew three percentage points. While adoption steadily increases, prior authorization continues to be one of the most burdensome administrative tasks for providers.[30,31,32,33]

2 Medical Volume Increased

Overall volume continued to increase (23 percent) after dropping during the height of the COVID-19 pandemic. The increase in volume was driven by an increase in all modes with use of the electronic prior authorizations increasing the most, 61 percent.

3 Medical Spend Increased

The medical industry spent 30 percent more, or $1.3 billion, on prior authorizations compared to the previous year as a result of the increase in volume. Although spending for this transaction is one of the lowest, the unit cost to conduct this transaction using the HIPAA standard is one of the highest for providers, approximately six dollars per transaction.

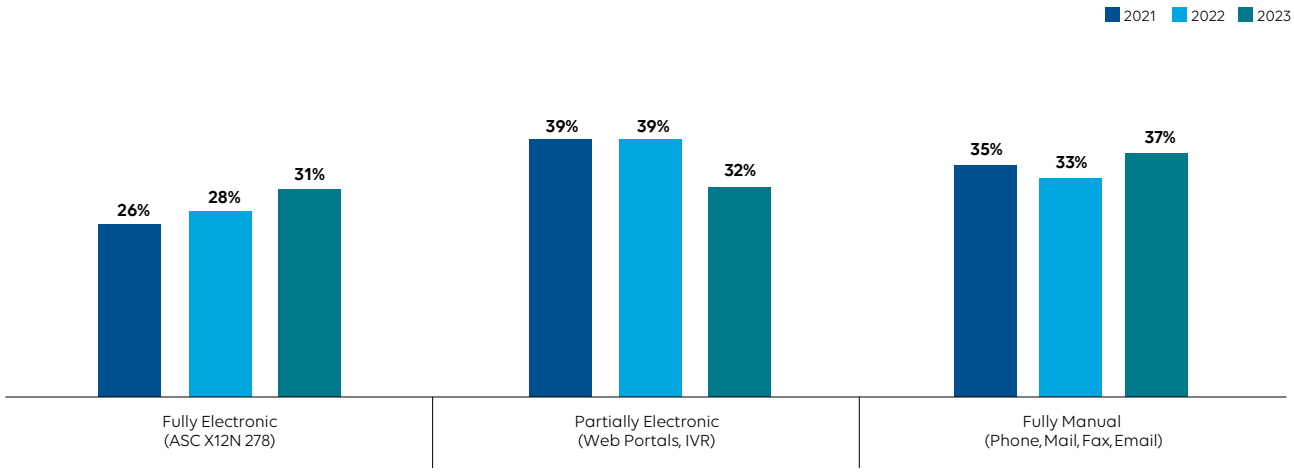
4 Provider Time to Conduct Prior Authorization – Among the Highest

Despite increased adoption, conducting prior authorizations electronically or via a portal remains one of the most time-consuming administrative tasks. Providers indicated that they spent, on average, 11 minutes conducting a prior authorization electronically and 16 minutes via a portal. As alleviating provider burden remains top of mind for stakeholders, reducing the time to complete prior authorizations is a focus. Many plans have also begun reducing the number of prior authorizations required for certain services with the hopes of easing administrative burden for providers.[34,35]

Specialists and behavioralists reported, on average, spending more time conducting prior authorizations manually and via a portal than generalists as services offered are typically more complex and unique, resulting in discussions between provider staff and health plans to ensure services, requests and responses are clear.

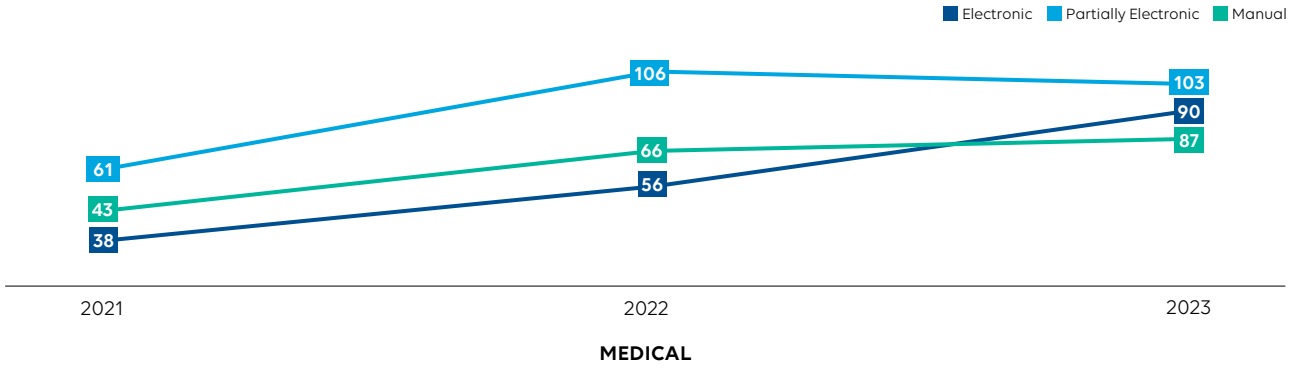
Adoption

Medical Plan Adoption of Prior Authorization
2021-2023 CAQH Index



Volume

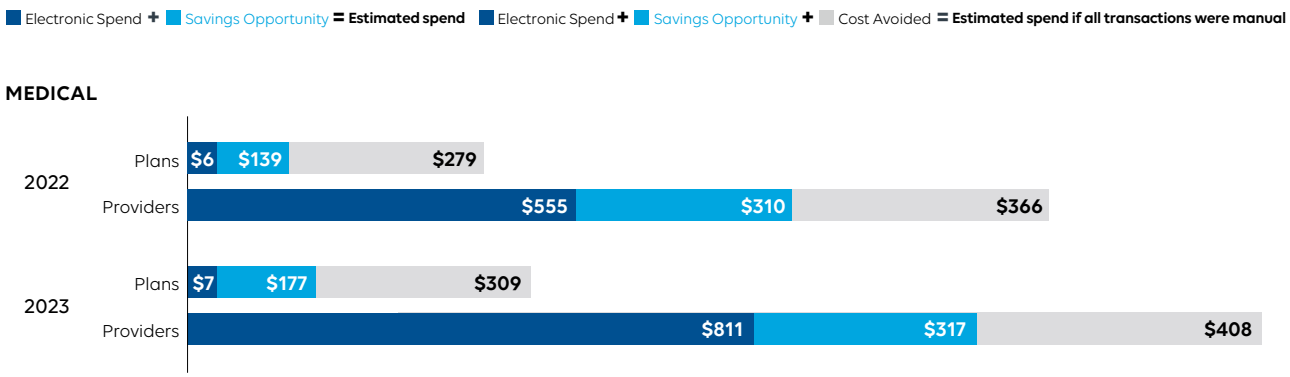
Estimated National Volume of Prior Authorization by Mode
2021-2023 CAQH Index (in millions)



Note: Data represents plans and providers.

Spend & Savings

Prior Authorization: How Much is Spent and Saved With Full Adoption?
2022-2023 CAQH Index (in millions)



Note: May not be drawn to scale.

Cost Savings Opportunity

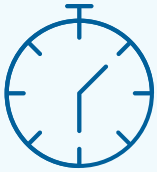
Electronic Prior Authorization: Cost Savings Opportunity

$494 Million in Cost Savings Opportunity Annually for the Medical Industry

Medical Industry:
$494M

Time Savings Opportunity

Electronic Prior Authorization: Time Savings Opportunity



Average Time Savings Opportunity (per transaction):

Medical Providers:
11 Minutes

Claim Submission

Definition:

A request to obtain payment or transmission of encounter information for the purpose of reporting delivery of healthcare services. HIPAA Transaction Standard: ASC X12N 837.

Transaction Highlights

1 Adoption Increased Slightly, Approaching Full Adoption

For the medical and dental industries, adoption increased one percentage point and remains one of the highest among the transactions, 98 and 87 percent, respectively. The medical industry is approaching a threshold representing full adoption of electronic claim submissions. While the increase reflects the continued effort by health plans to pursue electronic adoption, consolidation of smaller practices by ones with larger infrastructure has led to increases in the frequency that HIPAA standards are used.[36,37]

2 Volume Increased

After increasing approximately 20 percent the previous year due to an increase in pent-up demand for services, the number of medical and dental claims submitted rose less than ten percent this year, by eight and three percent, respectively. For both industries the higher volume was driven by an increase in electronic and manual submissions. One national health plan indicated that they have been promoting the use of electronic submissions.

3 Spending Increased

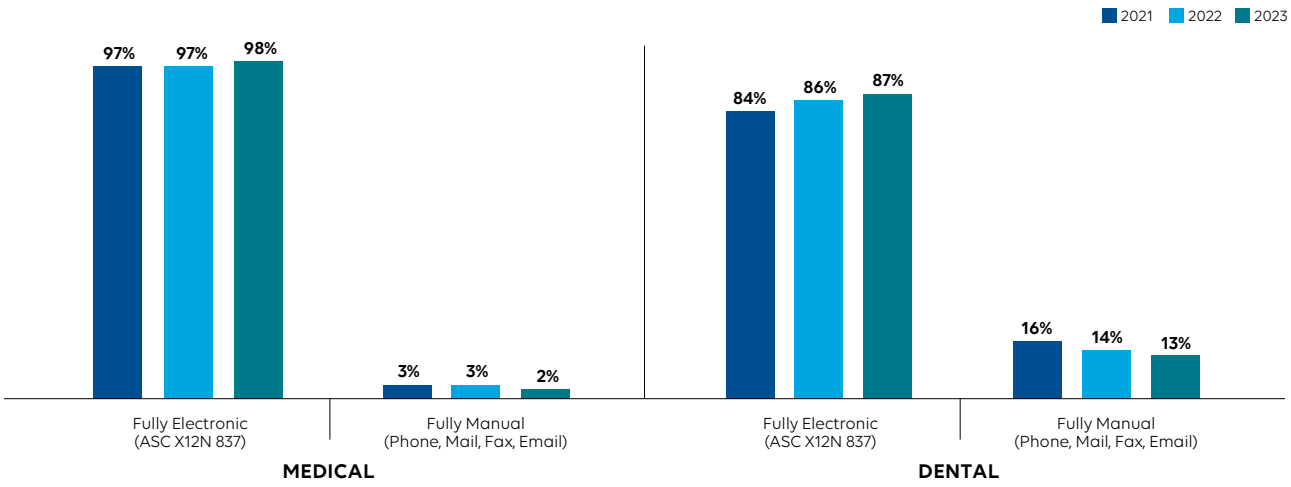
Spending on claim submissions rose 67 percent to $19 billion for medical and 34 percent to $1.3 billion for dental. The modest growth in adoption was accompanied by an increase in unit cost across modes for both industries. For dental providers, the higher costs may be due to providers spending more time submitting accurate information given the lack of dental information included on the 270/271.[38,39] Inaccurate or incomplete claim information may result in denied submissions and late payments.

4 Cost Savings Opportunity Decreased for Medical, Increased for Dental

The cost savings opportunity decreased eight percent for the medical industry as the industry approaches full adoption of the electronic standard. For the dental industry, the cost savings opportunity increased 4 percent – the only dental transaction reporting growth – due to the growing gap between manual and electronic costs. The cost to conduct electronic and manual transactions increased, with manual costs increasing slightly more on a dollar basis, as dental providers worked to clearly provide the necessary information to receive payments.

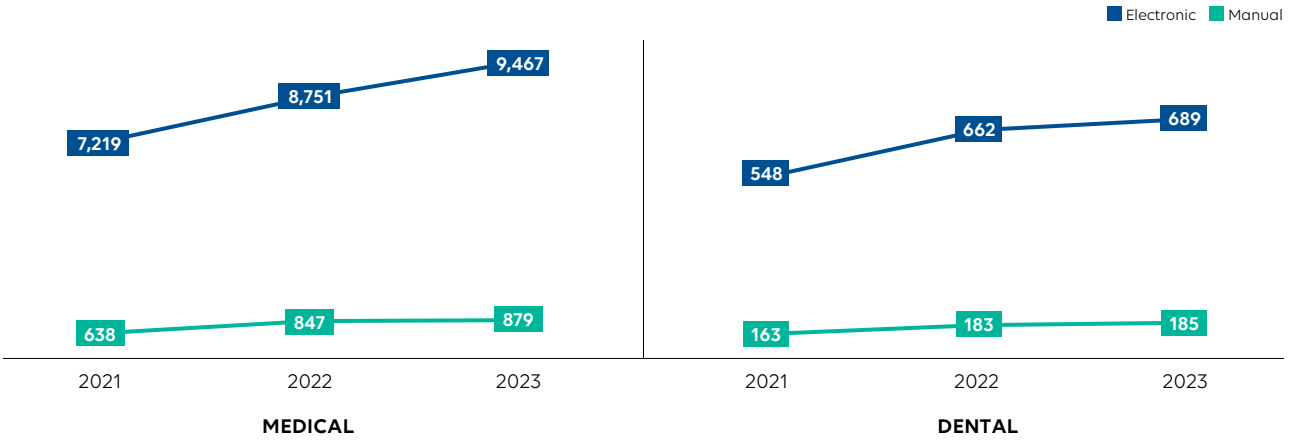
Adoption

Medical and Dental Plan Adoption of Claim Submission 2021-2023 CAQH Index



Volume

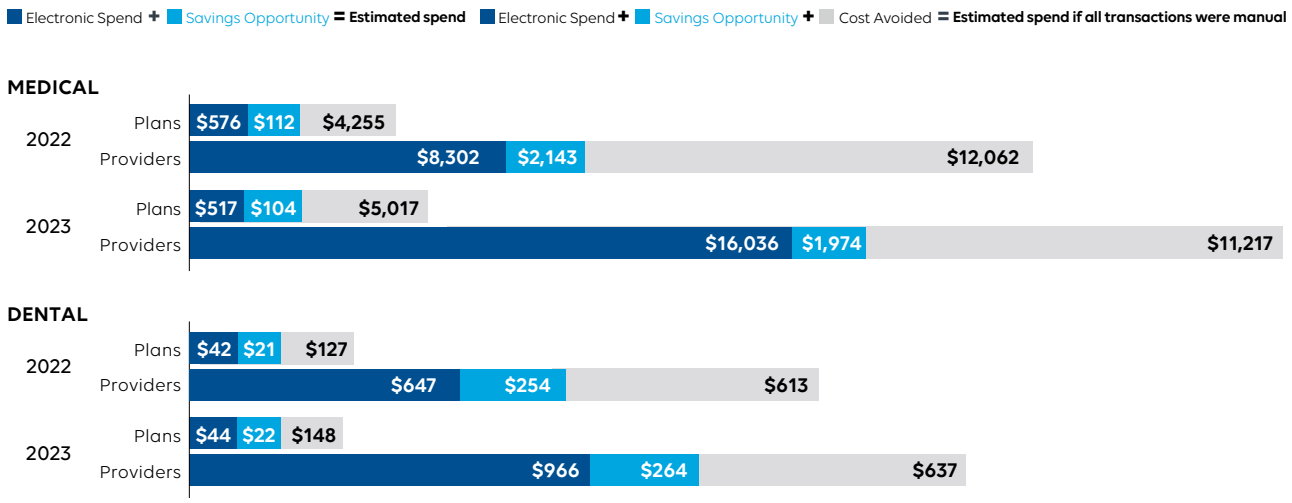
Estimated National Volume of Claim Submission by Mode 2021-2023 CAQH Index (in millions)



Note: Data represents plans and providers.

Spend & Savings

Claim Submission: How Much is Spent and Saved With Full Adoption?
2022-2023 CAQH Index (in millions)



Note: May not be drawn to scale.

Cost Savings Opportunity

Electronic Claim Submission: Cost Savings Opportunity

$2.4B

$2.4 Billion in Cost Savings Opportunity Annually for the Medical and Dental Industries Combined

Medical Industry: **$2.1B**

Dental Industry: **$286M**

Time Savings Opportunity

Electronic Claim Submission: Time Savings Opportunity

Average Time Savings Opportunity (per transaction):

Medical Providers: **5 Minutes**

Dental Providers: **4 Minutes**

New CORE Health Care Claims (837, 277CA) Operating Rules

In 2022 and early 2023, through environmental scans and research, the industry identified several business challenges related to health care claim submissions, including inconsistent data sharing between providers and payers, and notable increases in claim denials. Throughout 2023, CORE convened multi-stakeholder work groups to address these issues by establishing standardized data content requirements for transactions supporting claim submission, acknowledgement and error reporting. Final drafts of new CORE Health Care Claims Data Content Operating Rules for both the 837 claim submission and 277CA claim acknowledgement transactions are expected to be finalized in early 2024 for industry adoption.

Attachments

Definition:

Additional information submitted with claims for payment, claim appeals or prior authorization, such as medical records to support a claim or to explain the need for a procedure or service. Transaction Standards: ASC X12N 275, HL7 CDA.

Transaction Highlights

1 Adoption Increased – Lowest for Medical

While most HIPAA-mandated transaction standards have been federally adopted, an electronic standard for attachments has yet to be named, resulting in varied adoption by health plans. Health plans, providers and vendors are hesitant to develop standard processes and solutions without guidance. While adoption increased for the medical and dental industries, five and three percentage points respectively, the rate for medical remains the lowest among the transactions at 29 percent.

2 Volume Decreased

The number of attachments submitted decreased for both industries driven by a drop in manual transactions. The medical industry reported a 22 percent drop in attachments while the dental industry reported a seven percent drop after increasing the previous year. Fewer supporting documents were needed when submitting payments and prior authorizations in support of administrative simplification.

3 Spending Decreased

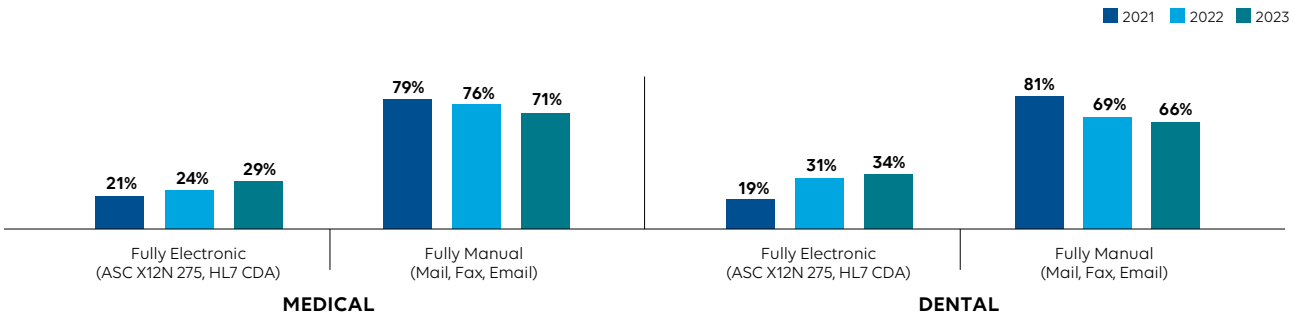
As volume decreased so did the spend associated with submitting attachments. Medical spend on attachments dropped 26 percent as overall volume dropped.

4 Cost Savings Opportunity Dropped

While lower volume led to a 34 percent decrease in overall cost savings opportunity, until an electronic standard is mandated, varied and incomplete automated solutions and manual workarounds will lead to unavoidable costs.

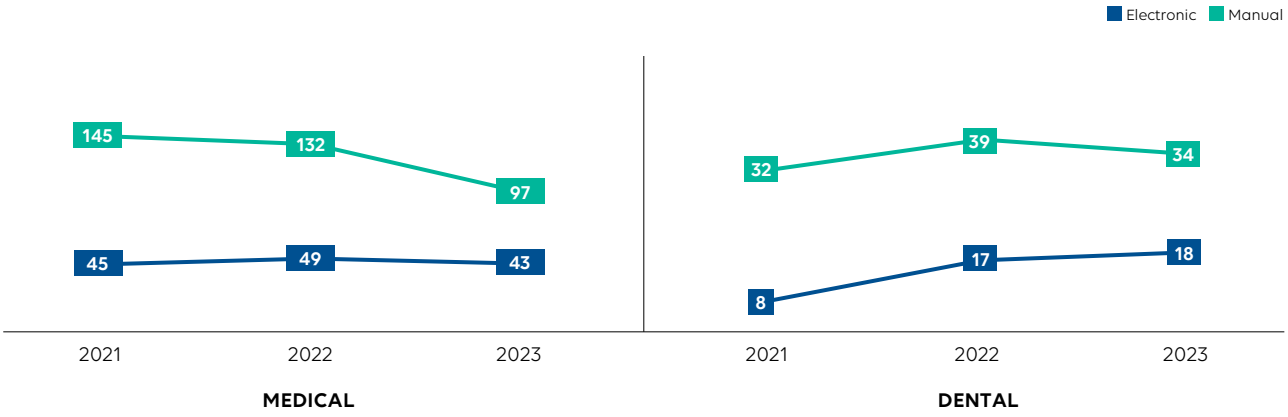
Adoption

Medical Plan Adoption of Attachments 2021-2023 CAQH Index



Volume

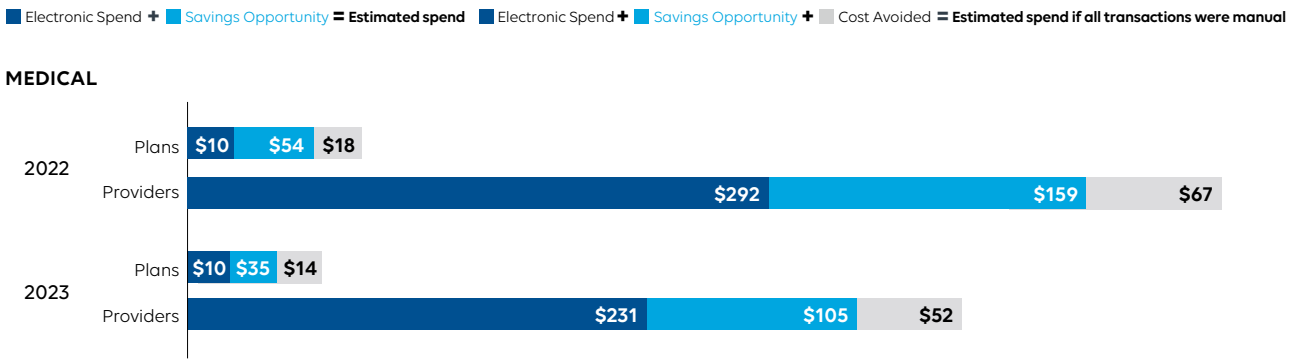
Estimated National Volume of Attachments by Mode 2021-2023 CAQH Index (in millions)



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

Spend & Savings

Attachments: How Much is Spent and Saved With Full Adoption?
2020-2021 CAQH Index (in millions)



Note: May not be drawn to scale.

Cost Savings Opportunity

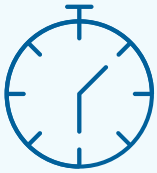
Electronic Attachments: Cost Savings Opportunity

$140 Million in Cost Savings Opportunity Annually for the Medical Industry

Medical Industry:
$140M

Time Savings Opportunity

Electronic Attachments: Time Savings Opportunity



Average Time Savings Opportunity (per transaction):

Medical Providers:
5 Minutes

Status of CORE Attachments Operating Rules

In 2022, CORE published a set of Attachments Operating Rules to establish infrastructure and data content requirements for attachments, or additional documentation, sent to support a prior authorization request or health care claims submission. The rules are standard agnostic, supporting a variety of standards including X12 275, FHIR Resources, HL7 CCDA, etc. Specifically, the rules focus on:

- Infrastructure requirements that align with existing CORE Infrastructure Rules to uniformly send electronic attachments.
- Simplified re-association of a claim or prior authorization to an attachment, reducing the need for manual intervention.
- Faster coverage decision to support patient care by enabling consistent, electronic exchange of needed supporting documentation.

In December 2022, CMS released a proposed rule, "Adoption of Standards for Health Care Attachments Transactions and Electronic Signatures, and Modification to Referral Certification and Authorization Transaction Standard (CMS-0053-P)." If finalized, the proposed rule would adopt long-awaited standards for attachments under HIPAA to support health care claims and prior authorization transactions. In June 2023, the National Committee on Vital and Health Statistics (NCVHS) recommended that HHS wait to consider operating rules for attachments after a standard is adopted under HIPAA.

Acknowledgements

Definition:

A health plan's response to a provider or provider's clearinghouse that they received information from the provider or clearinghouse; or a confirmation received by a provider that the information shared with a health plan has been rejected or accepted. Transaction Standard: ASC X12N 277CA/999

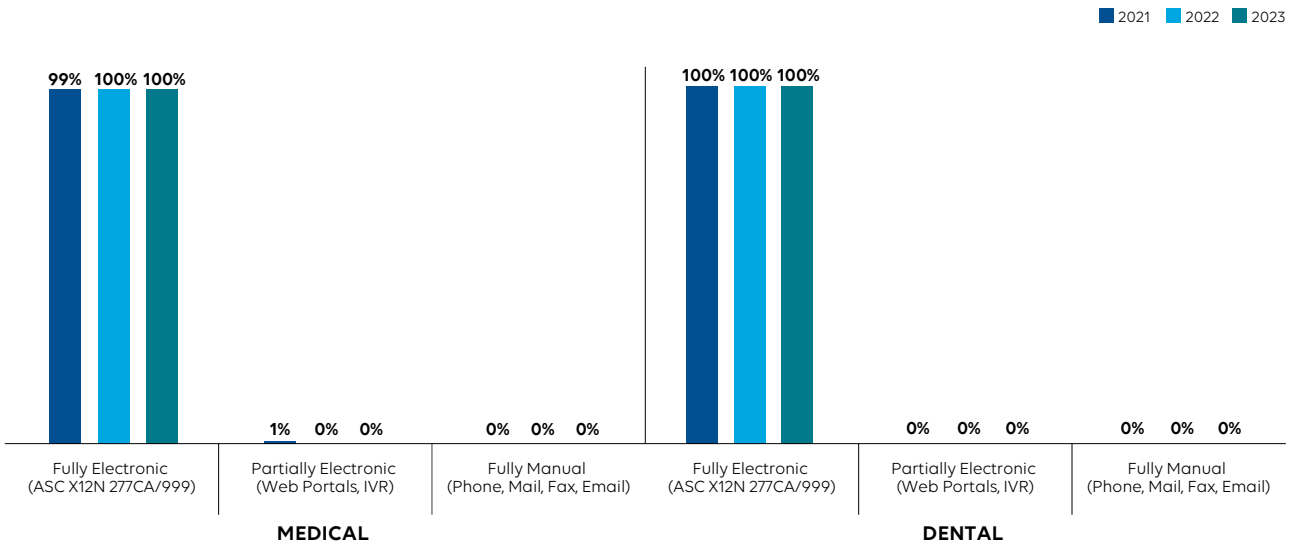
Transaction Highlights

1 Fully Automated

Given health plan systems auto-generate confirmation responses to information received, electronic adoption is 100 percent for both industries.

Adoption

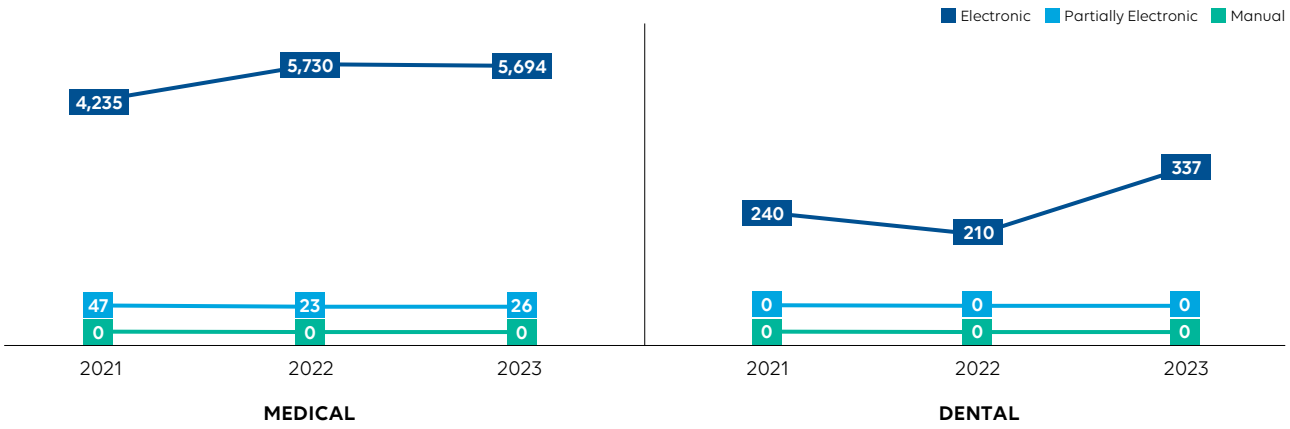
Medical and Dental Plan Adoption of Acknowledgements
2021-2023 CAQH Index



N/R = Not Reported

Volume

Estimated National Volume of Acknowledgements by Mode 2021-2023 CAQH Index (in millions)



N/R = Not Reported

Coordination of Benefits

Definition:

Claims that are sent to secondary payers with explanation of payment information from the primary payer to determine remaining payment responsibilities. HIPAA Transaction Standard: ASC X12N 837.

Transaction Highlights

1 Medical Adoption Dropped Slightly, Dental Stable

Medical adoption dropped one percentage point to 90 percent while dental adoption remained stable at 52 percent.

2 Volume Decreased

For the medical industry, the number of coordination of benefits (COBs) that were conducted dropped 23 percent after increasing the previous year. As the high rate of job switching in 2021 started to stabilize,[40] changes in coverage were less frequent thus the need to coordinate benefits decreased. The drop in volume was highest for electronic but occurred for all modes.

3 Spending Decreased

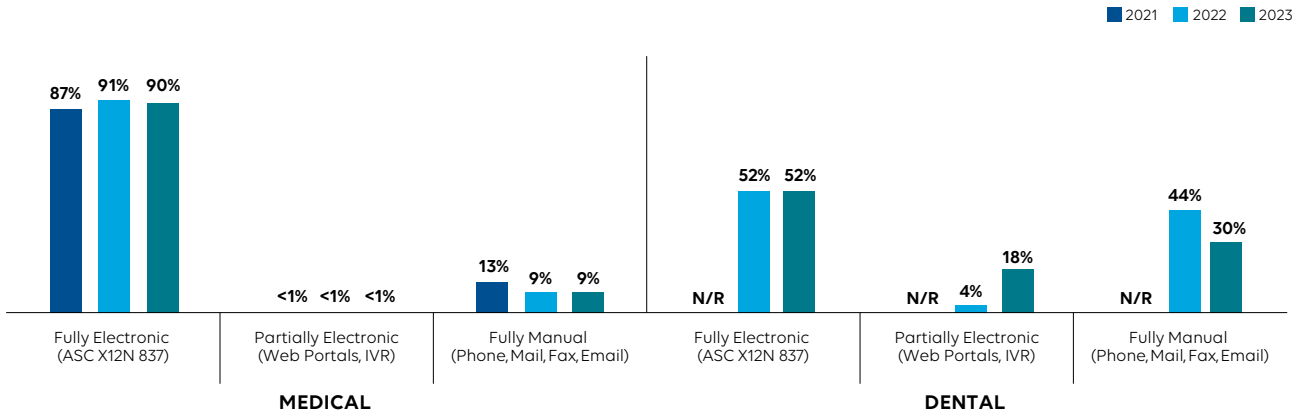
Spending for this transaction decreased 22 percent to $51 million for the medical industry and 29 percent to $5 million for the dental industry. For both industries, COB spending accounts for less than one percent of the total annual spend.

4 Cost Saving Opportunity Decreased

After increasing last year, the cost savings associated with switching from manual to electronic COBs decreased for both industries. The medical industry reported a 14 percent drop while the dental industry reported approximately a 20 percent drop. Lower manual volume and stable or lower plan costs drove the drop for both industries.

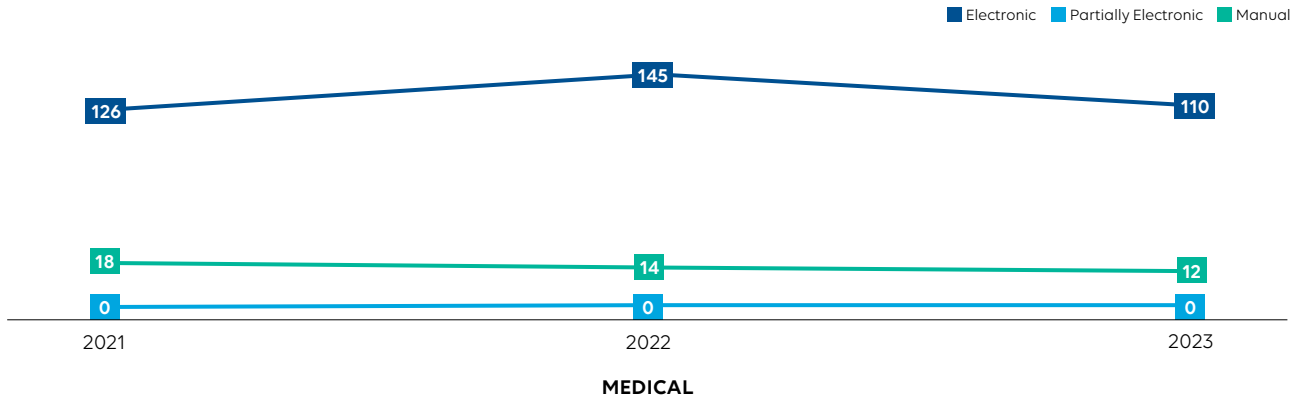
Adoption

Medical and Dental Plan Adoption of Coordination of Benefits
2021-2023 CAQH Index



Volume

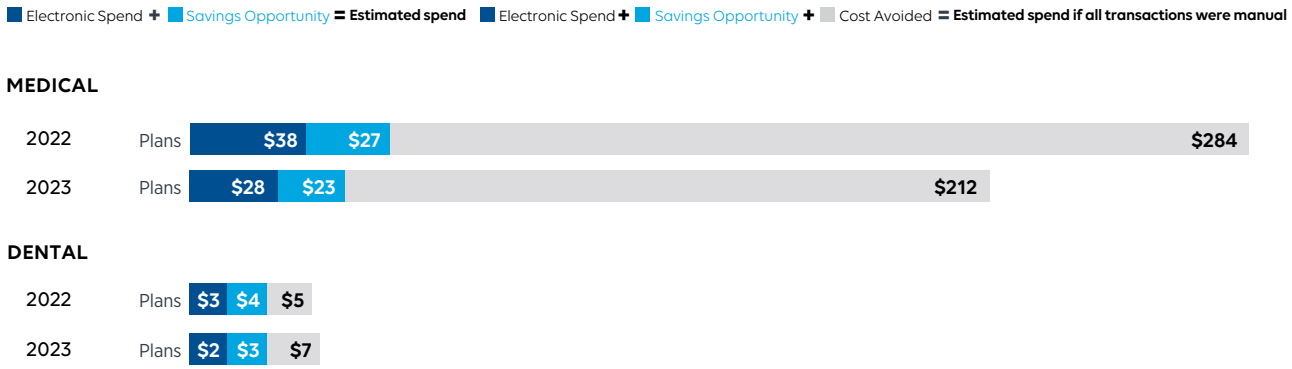
Estimated National Volume of Coordination of Benefits by Mode
2021-2023 CAQH Index (in millions)



0 = <1 million

Spend & Savings

Coordination of Benefits: How Much is Spent and Saved With Full Adoption? 2022-2023 CAQH Index (in millions)



Note: May not be drawn to scale.

Cost Savings Opportunity

Electronic Coordination of Benefits: Cost Savings Opportunity

Claim Status Inquiry

Definition:

An inquiry from a provider to a health plan to determine the status of a healthcare claim or a response from the health plan. HIPAA Transaction Standard: ASC X12N 276/277.

Transaction Highlights

1 Adoption Increased

Adoption of electronic claim status inquiries increased two percentage points for the medical industry and three percentage points for the dental industry. Dental adoption has continued to steadily increase over the last five years.

2 Medical Volume Increased, Dental Decreased

For the medical industry, the number of claim status inquiries conducted increased 19 percent. A few large plans reported a meaningful increase in volume due to the presence of "bots." Conversely, claim status inquiry volume dropped 27 percent for the dental industry. Dental plans reported faster processing times for claims that led to a decrease in providers inquiring about payments.

3 Medical Spending Increased – Highest Increase, Dental Decreased

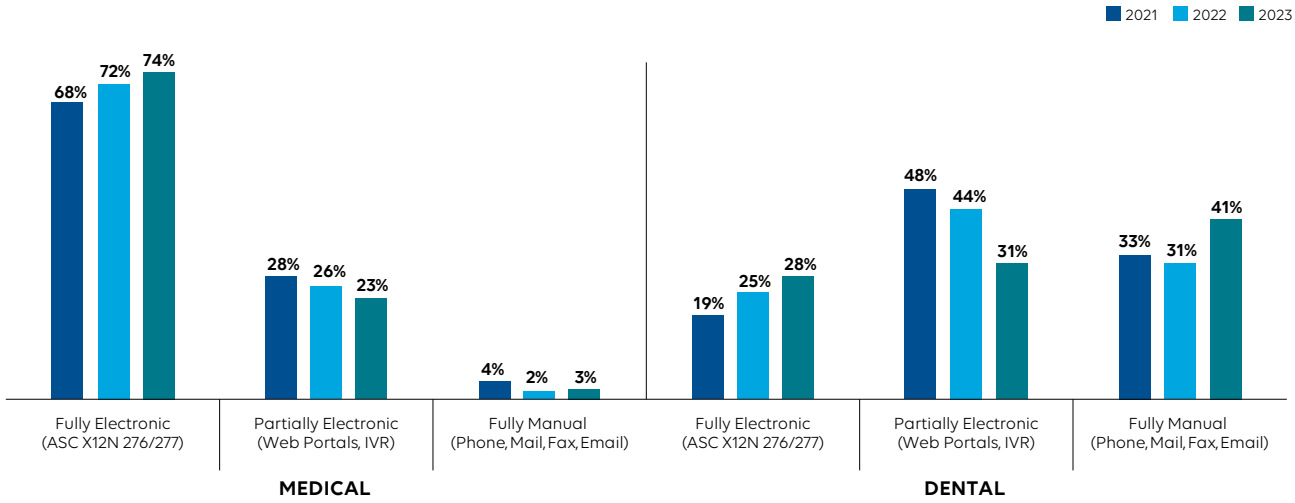
Medical spending on claim status inquiries grew 71 percent to $12.5 billion, the highest increase among the transactions, and accounts for 15 percent of the total annual spend. The growth in spend was driven by increased volume and workforce issues resulting in higher provider time and costs to conduct inquiries. Medical providers reported spending, on average, 24 minutes conducting a manual claim status inquiry, costing approximately $12 per transaction – the highest time and cost among the transactions along with prior authorization. Spending decreased 15 percent for the dental industry as providers conducted fewer inquiries due to faster payments by plans.

4 Cost Savings Opportunity Decreased

The cost savings opportunity for the medical industry dropped 10 percent to $3.2 billion and accounts for 20 percent of the total annual savings opportunity. The drop is a result of an increase in electronic unit costs as manual costs remained fairly stable. For the dental industry, the costs savings opportunity decreased 24 percent to $472 million, accounting for 25 percent of the total annual cost savings opportunity, as dental volume and spending declined. For both industries the cost savings opportunity accounts for the highest portion of the total annual savings opportunity after eligibility and benefit verification.

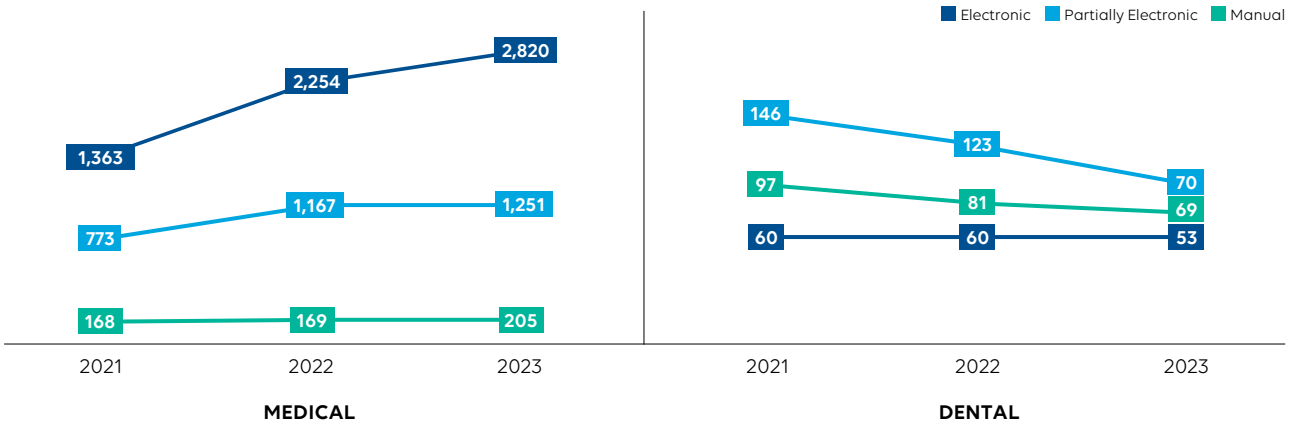
Adoption

Medical and Dental Plan Adoption of Claim Status Inquiry 2021-2023 CAQH Index



Volume

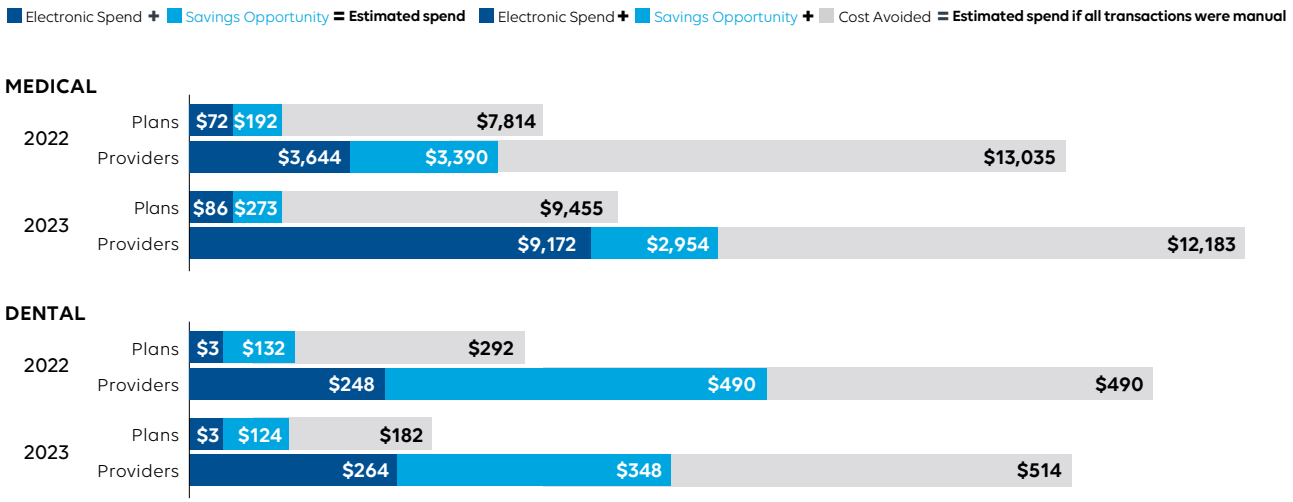
Estimated National Volume of Claim Status Inquiry by Mode 2021-2023 CAQH Index (in millions)



Note: Data represents plans and providers.

Spend & Savings

Claim Status Inquiry: How Much is Spent and Saved With Full Adoption?
2022-2023 CAQH Index (in millions)



Note: May not be drawn to scale.

Cost Savings Opportunity

Electronic Claim Status Inquiry: Cost Savings Opportunity

$3.7B

$3.7 Billion in Cost Savings Opportunity Annually for the Medical and Dental Industries Combined

Medical Industry: **$3.2B**

Dental Industry: **$472M**

Time Savings Opportunity

Electronic Claim Status Inquiry: Time Savings Opportunity

Average Time Savings Opportunity (per transaction):

Medical Providers: **17 Minutes**

Dental Providers: **14 Minutes**

Claim Payment

Definition:

An electronic funds transfer (EFT) from a health plan's bank to a provider's bank; including payment and data specific to the payment. HIPAA Transaction Standard: NACHA Corporate Credit or Deposit Entry with Addenda Record (CCD+).

Transaction Highlights

1 Medical Adoption Decreased, Dental Increased

For the medical industry, adoption dropped two percentage points. Conversely, dental adoption increased four percentage points, the highest increase among transactions along with eligibility and benefits verification. Dental associations continue to promote and encourage the use of EFTs as a more efficient option to obtaining payment.[41]

2 Volume Increased

Overall claim payment volume increased nine percent for the medical industry with an eight percent increase in EFT volume. The increase in EFTs aligns with the increase noted by Nacha during this same time frame.[42] The dental industry experienced a 12 percent increase in volume, driven by a 39 percent increase in EFTs.

3 Spending Increased

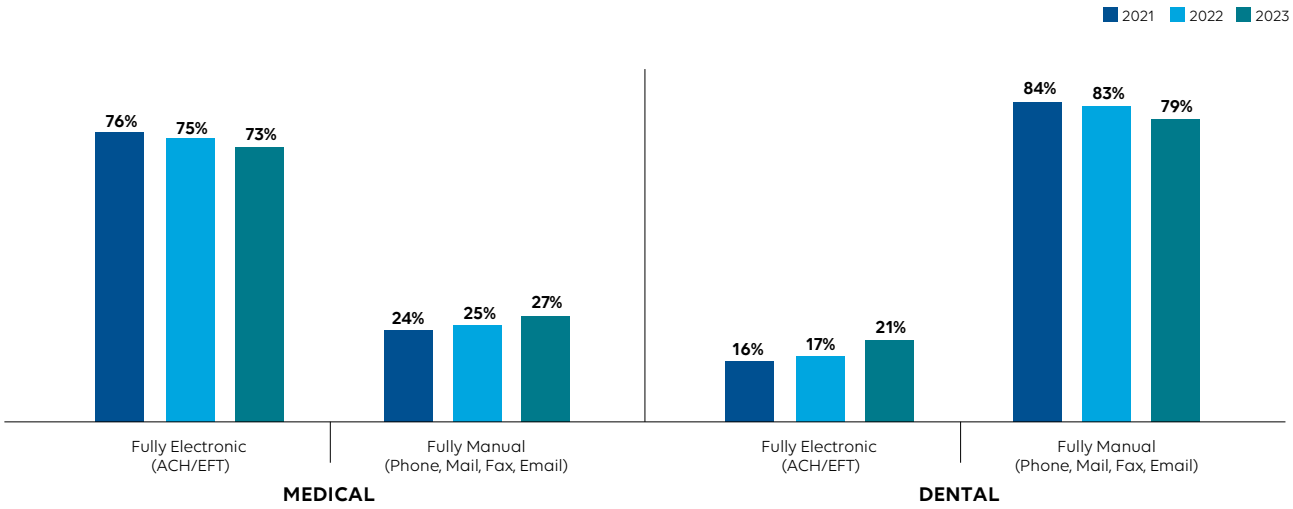
Spending increased two percent for the medical industry as higher overall volume was countered by lower manual costs for providers. For the dental industry, spending increased 20 percent due to an increase in volume and provider costs. Medical and dental plans both reported an increase in manual costs which a few plans attributed to an increase in postage.

4 Cost Savings Opportunities Dropped

The medical and dental industries experienced a drop in cost savings opportunities, 44 and 37 percent, respectively. For the medical industry, the drop can be attributed to a decrease in plan manual volume and provider manual spend. For the dental industry, the drop is due to an increase in adoption and use of EFTs.

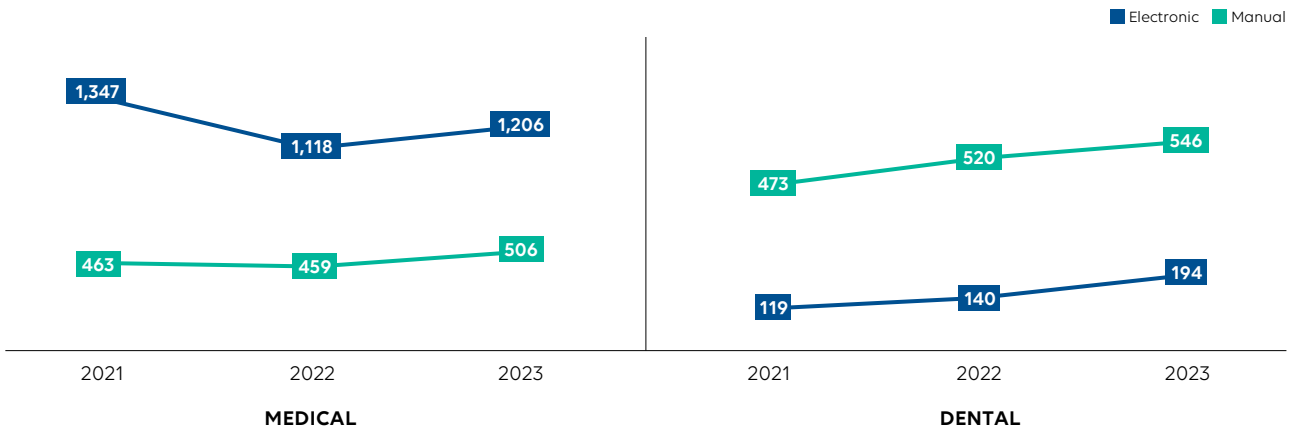
Adoption

Medical and Dental Plan Adoption of Claim Payment 2021-2023 CAQH Index



Volume

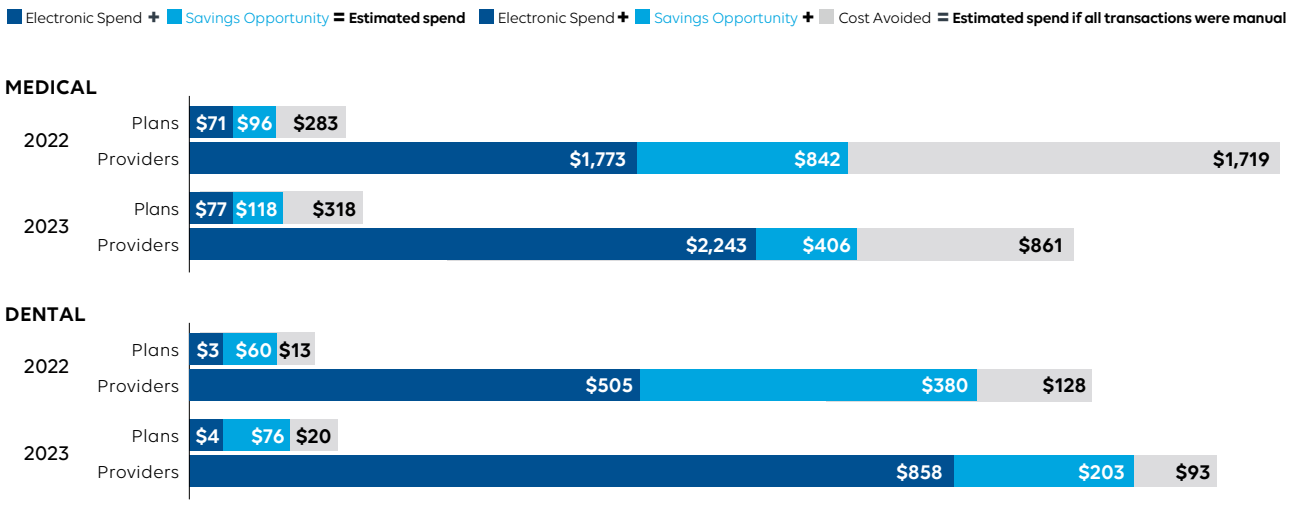
Estimated National Volume of Claim Payment by Mode 2021-2023 CAQH Index (in millions)



Note: Data represents plans and providers.

Spend & Savings

Claim Payment: How Much is Spent and Saved With Full Adoption?
2022-2023 CAQH Index (in millions)



Note: May not be drawn to scale.

Cost Savings Opportunity

Electronic Claim Payment: Cost Savings Opportunity

$803M

$803 Million in Cost Savings Opportunity Annually for the Medical and Dental Industries Combined

Medical Industry: **$524M**

Dental Industry: **$279M**

Time Savings Opportunity

Electronic Claim Payment: Time Savings Opportunity

Average Time Savings Opportunity (per transaction):

Medical Providers: **3 Minutes**

Dental Providers: **1 Minute**

Updates to the CORE Payment & Remittance (835) Operating Rules

In collaboration with Nacha, which manages the development, administration and governance of the ACH Network, CORE convened a task group in 2023 to address current and emerging business needs related to fraud and security and drive greater EFT and ERA adoption through updates to the CORE Payment & Remittance EFT/ERA Enrollment Operating Rules. Draft updates include adding process-oriented measures to enhance fraud detection, requiring disclosure of applicable EFT fees, providing language to support bulk enrollment, and establishing confirmation and acceptance requirements for health plans and their agents. Final drafts of updated CORE Payment & Remittance EFT/ERA Enrollment Data Rules are expected to be finalized in early 2024.

Remittance Advice

Definition:

The transmission of explanation of benefits or remittance advice from a health plan to a provider explaining a payment. HIPAA Transaction Standard: ASC X12N 835.

Transaction Highlights

1 Medical Adoption Increased, Dental Stable

Adoption increased 5 percentage points for the medical industry to 88 percent – the highest increase among the transactions. Dental adoption remained stable at 36 percent after experiencing a substantial increase the previous year.

2 Medical Volume Decreased, Dental Increased Slightly

Medical volume decreased 22 percent while dental volume increased four percent. Use of portals decreased for the medical and dental industry, 36 and 13 percent respectively, as the practice of duplicating remittance advices on plan portals and through ERAs appears to be declining.

3 Medical Spending Dropped, Dental Stable

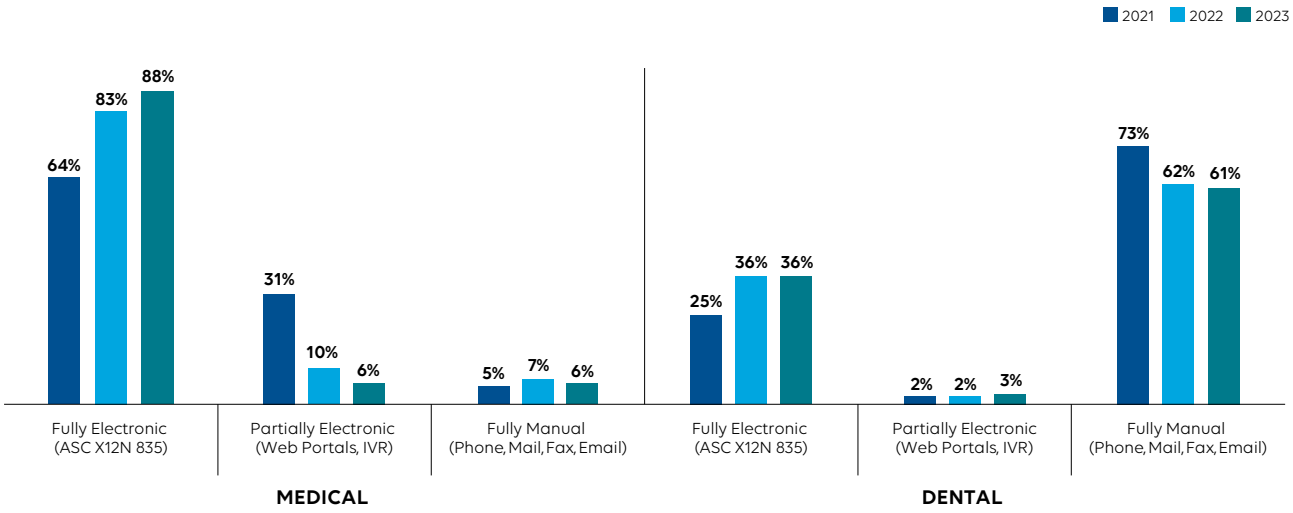
Spending decreased 20 percent for the medical industry as the cost to conduct a remittance advice manually dropped for providers. Spending remained stable for the dental industry as the slight increase in volume was driven by an increase in use of the HIPAA standard.

4 Cost Savings Opportunities Decreased – Largest Decrease for Both Industries

The savings opportunity associated with switching from electronic to manual transactions decreased for the medical and dental industries, 66 and 45 percent, respectively – the largest decrease for both industries. The decrease is due to a drop in manual costs for medical and dental providers.

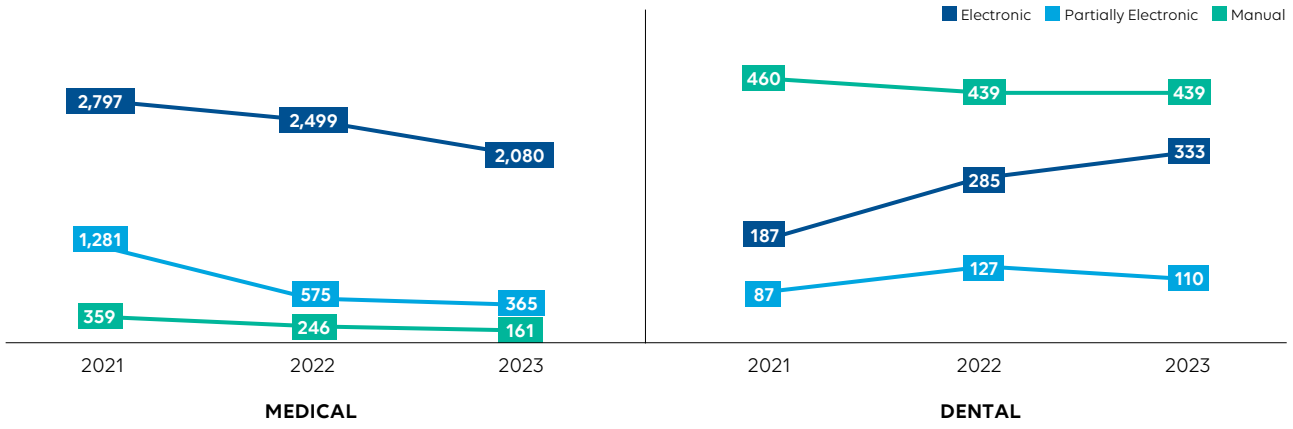
Adoption

Medical and Dental Plan Adoption of Remittance Advice 2021-2023 CAQH Index



Volume

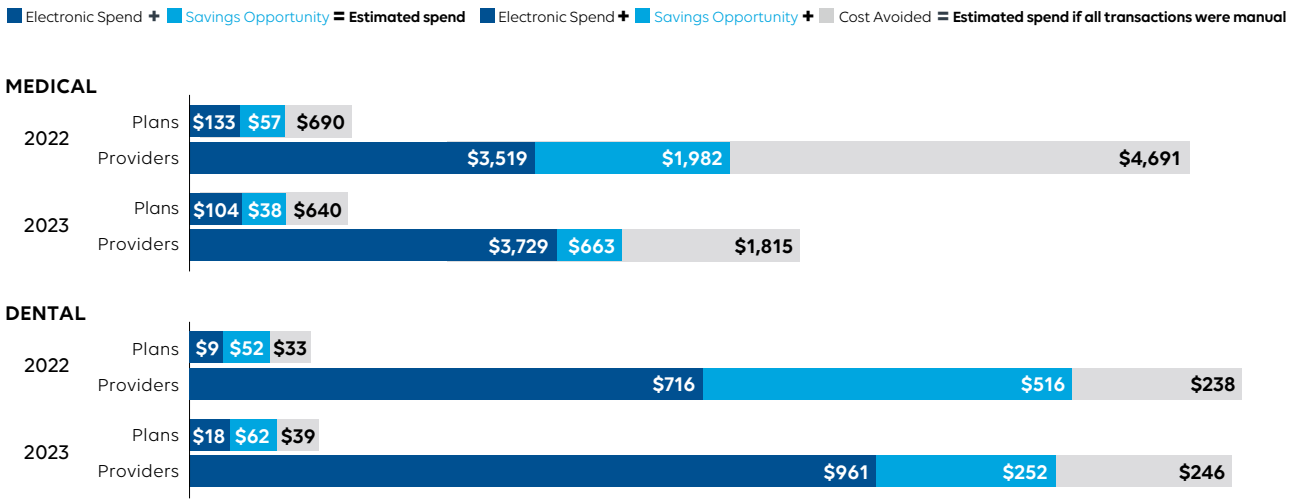
Estimated National Volume of Remittance Advice by Mode 2021-2023 CAQH Index (in millions)



Note: Data represents plans and providers.

Spend & Savings

Remittance Advice: How much is Spent and Saved With Full Adoption?
2022-2023 CAQH Index (in millions)



Note: May not be drawn to scale.

Cost Savings Opportunity

Remittance Advice: Cost Savings Opportunity

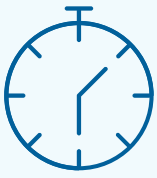
$1.02 Billion in Cost Savings Opportunity Annually for the Medical and Dental Industries Combined

Medical Industry: **$701M**

Dental Industry: **$314M**

Time Savings Opportunity

Remittance Advice: Time Savings Opportunity



Average Time Savings Opportunity (per transaction):

Medical Providers: **5 Minutes**

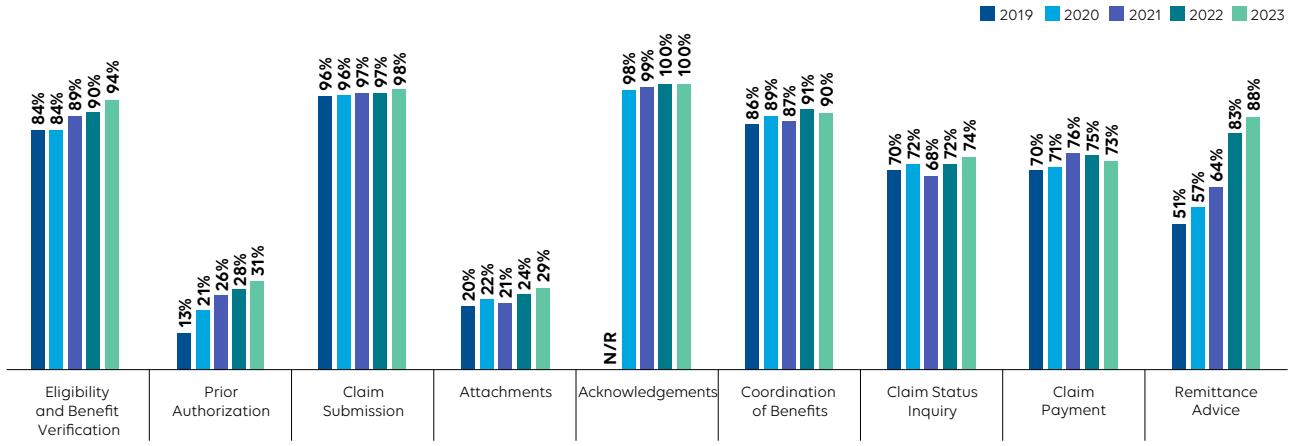
Dental Providers: **2 Minutes**

Overall Key Metrics

The CAQH Index benchmarks medical and dental industry adoption, volume, cost savings opportunities and spend for administrative transactions. Trending these metrics helps the industry measure progress towards an automated workflow while identifying areas for improvement.

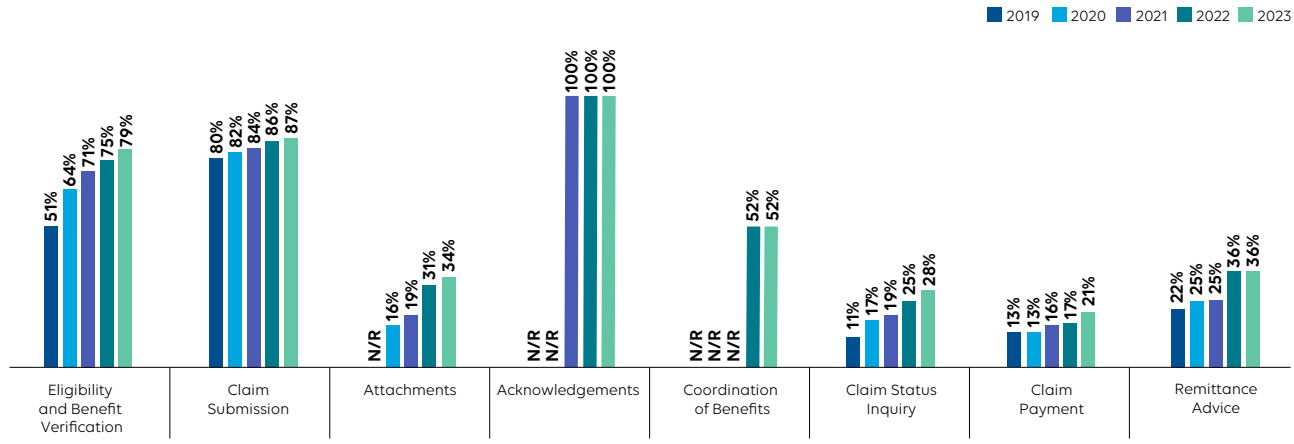
Adoption

Medical Plan Adoption of Fully Electronic Administrative Transactions 2019-2023 CAQH Index



N/R = Not Reported

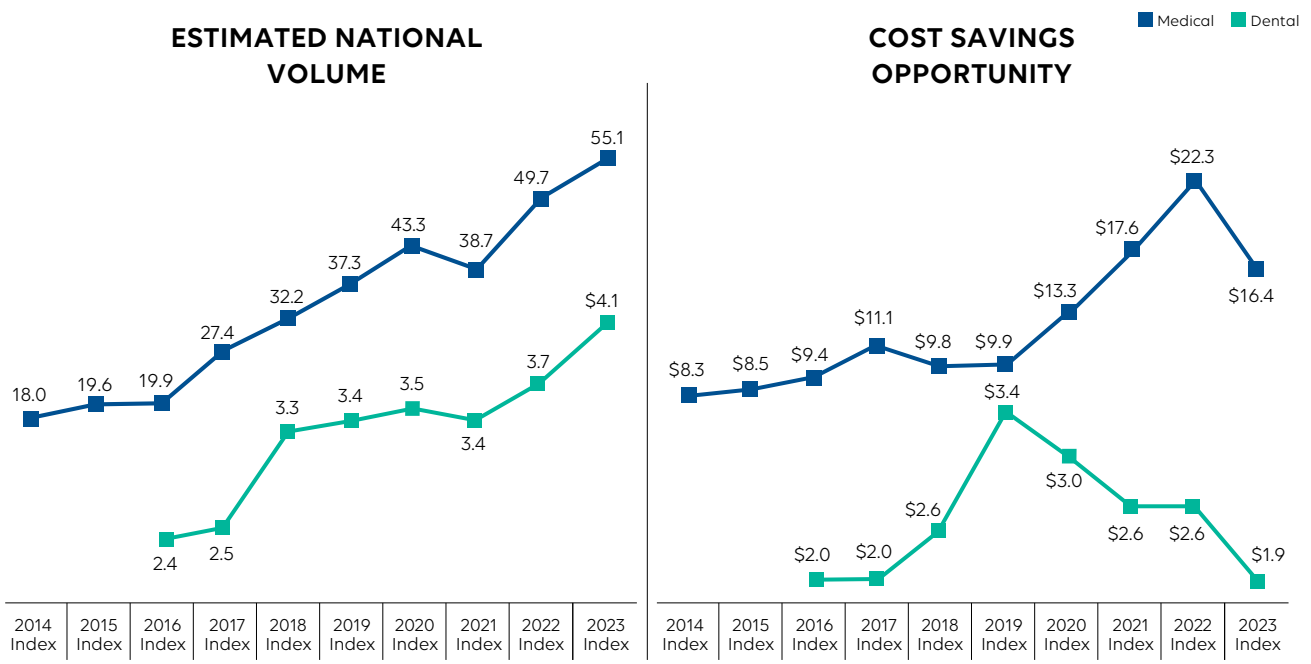
Dental Plan Adoption of Fully Electronic Administrative Transactions 2019-2023 CAQH Index



N/R = Not Reported

Volume

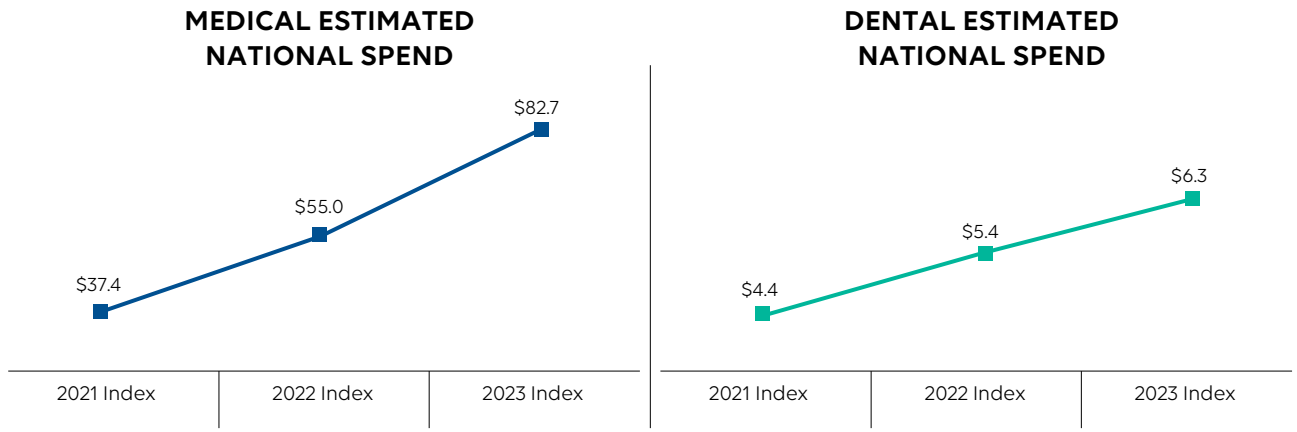
Medical and Dental Industry Estimated National Volume and Cost Savings Opportunity 2014-2023 CAQH Index (in billions)



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

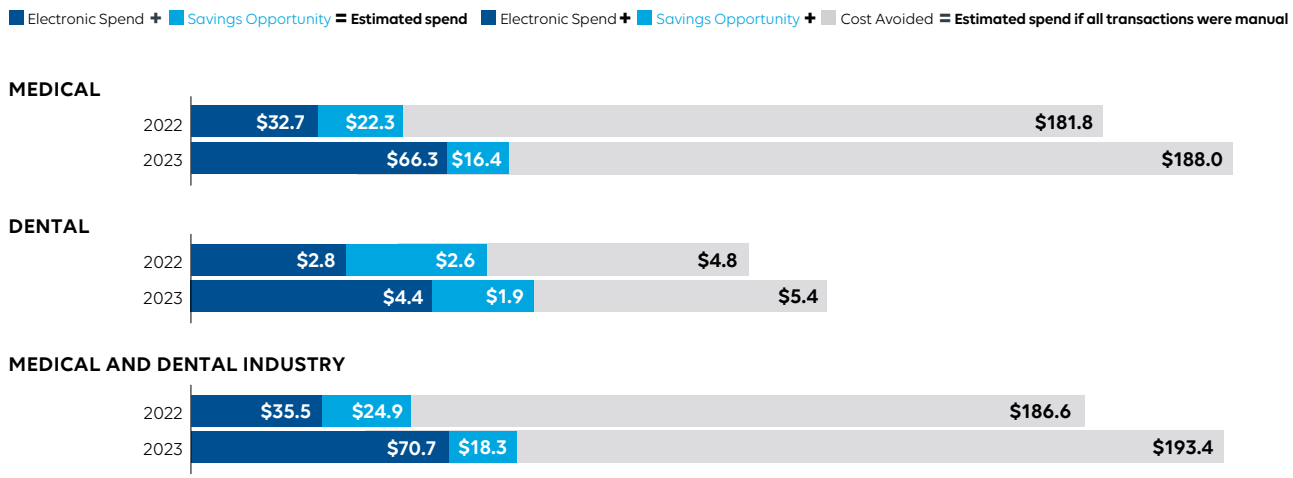
Spend & Savings

Medical and Dental Industry Estimated National Spend 2021-2023 CAQH Index (in billions)



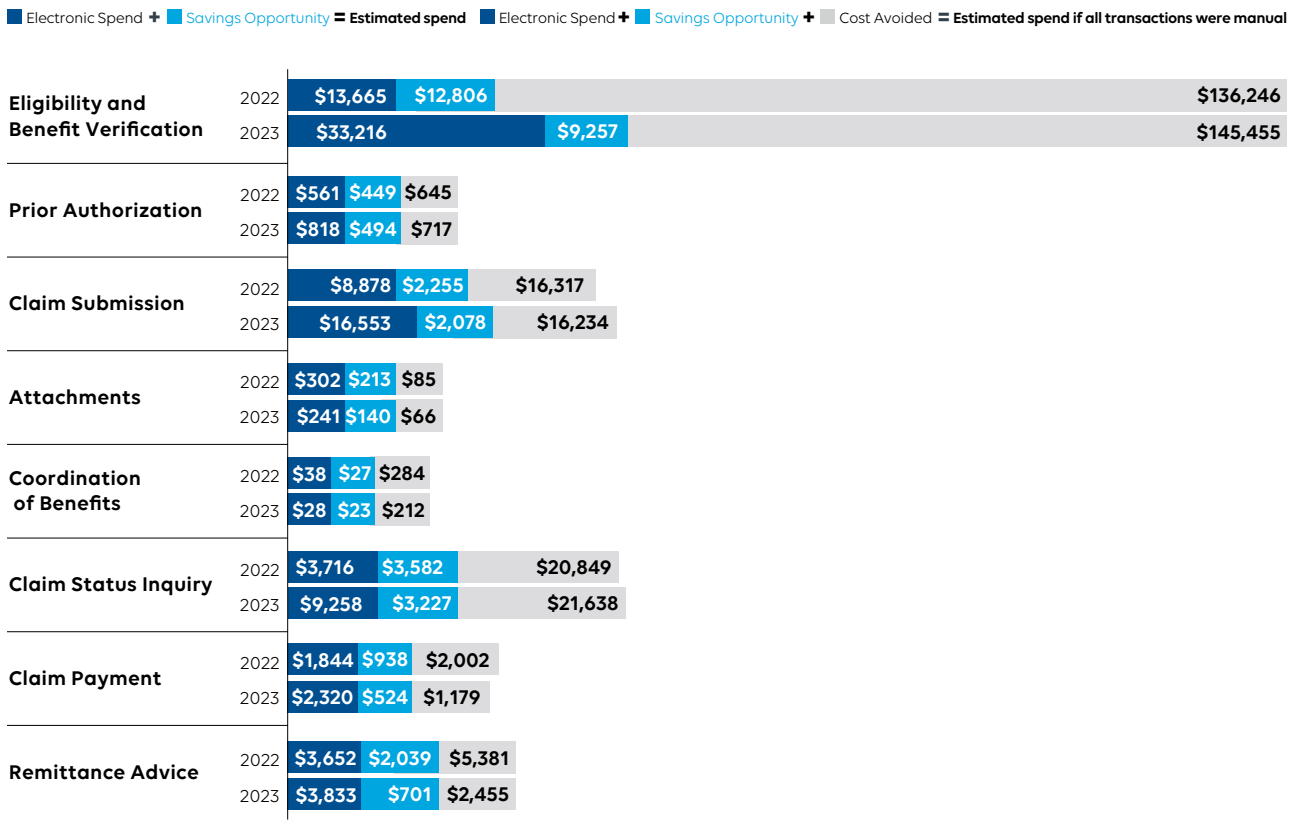
Note: From year to year reported transactions may change due to low volume collected.
May not be drawn to scale.

Medical and Dental Industry Estimated National Spend and Savings 2022-2023 CAQH Index (in billions)



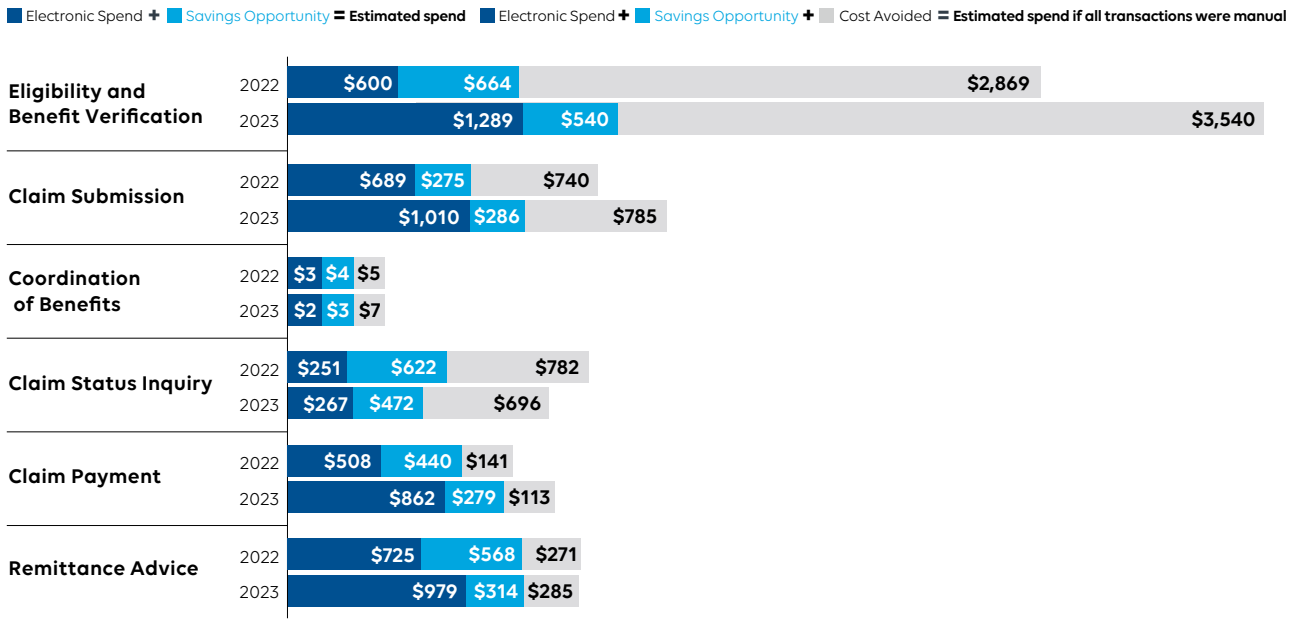
Note: May not be drawn to scale.

Medical Industry Estimated National Spend and Savings by Transaction 2022-2023 CAQH Index (in millions)



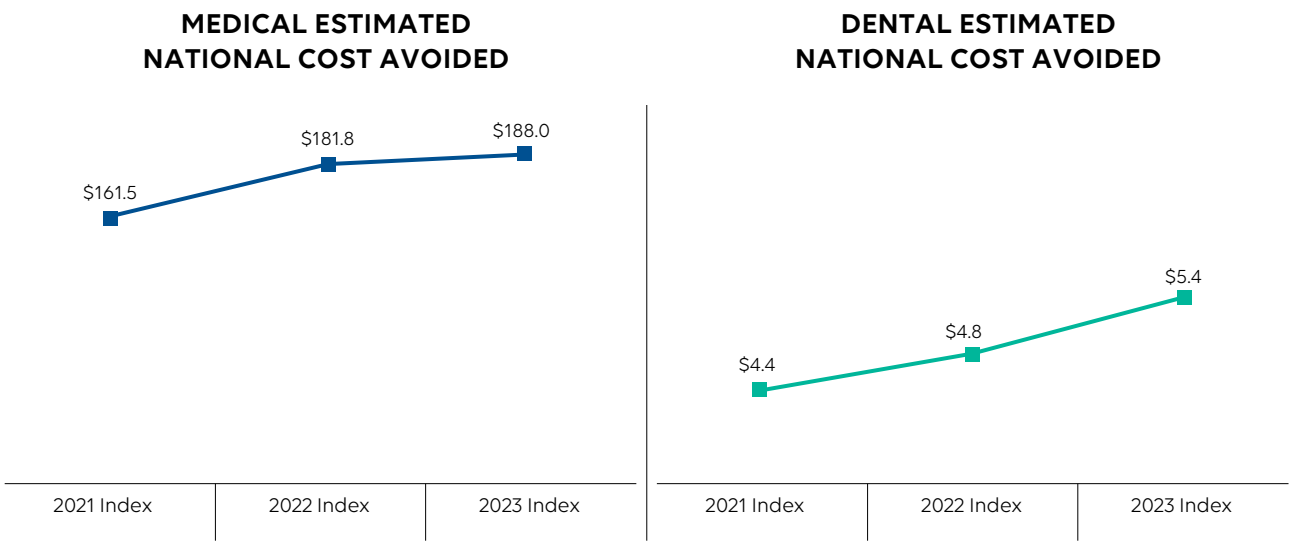
Note: May not be drawn to scale.

Dental Industry Estimated National Spend and Savings by Transaction 2022-2023 CAQH Index (in millions)



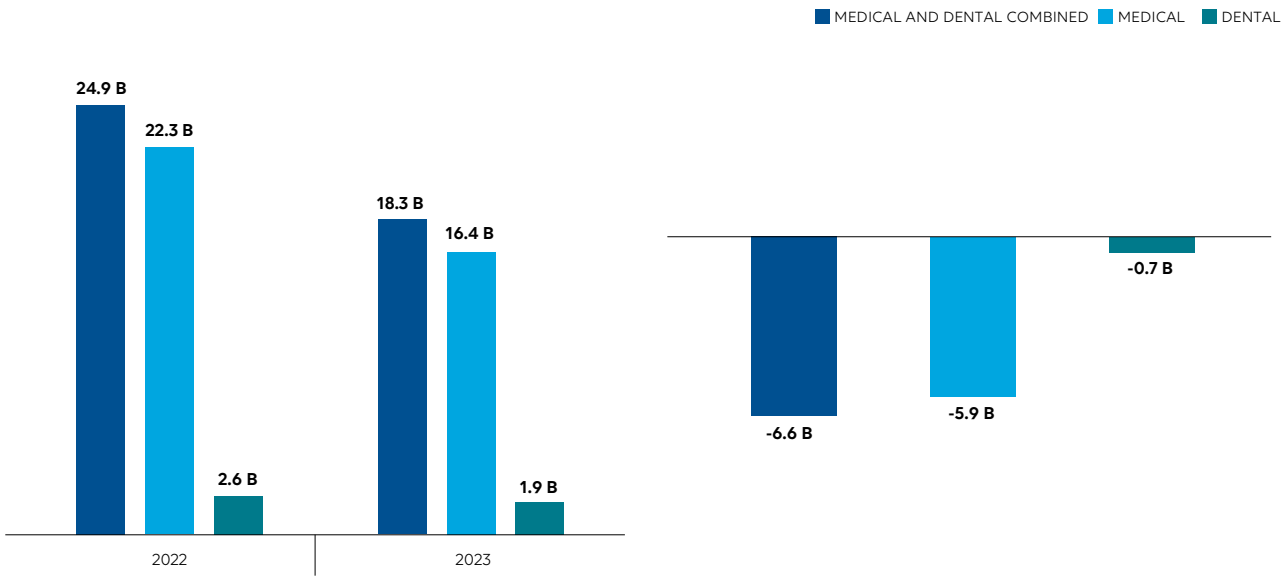
Note: May not be drawn to scale.

Medical and Dental Industry Estimated National Cost Avoided 2021-2023 CAQH Index (in billions)



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

Medical and Dental Industry Estimated Cost Savings Opportunity and Year-Over-Year Change 2022-2023 CAQH Index



INDUSTRY COST SAVINGS OPPORTUNITY **CHANGE IN INDUSTRY COST SAVINGS OPPORTUNITY**

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

Cost Savings Opportunity Tables

The tables listed below include, by mode, the average cost per transaction, estimated national volume and cost savings opportunities for medical and dental plans and providers. Understanding the cost and volume of administrative transactions along with the savings associated with switching to fully electronic transactions helps organizations identify and target pain points.

Average Cost and Savings Opportunity per Transaction by Mode, Medical, 2023 CAQH Index

Transaction	Mode	Plan Cost	Provider Cost	Industry Cost	Plan Cost Savings Opportunity	Provider Cost Savings Opportunity	Industry Cost Savings Opportunity
Eligibility and Benefit Verification	Manual	$ 4.59	$ 7.97	$ 12.56	$ 4.55	$ 5.79	$ 10.34
	Partial	$ 0.04	$ 4.07	$ 4.11	$ 0.00	$ 1.89	$ 1.89
	Electronic	$ 0.04	$ 2.18	$ 2.22			
Prior Authorization	Manual	$ 3.52	$ 10.97	$ 14.49	$ 3.47	$ 5.18	$ 8.65
	Partial	$ 0.05	$ 8.04	$ 8.09	$ 0.00	$ 2.25	$ 2.25
	Electronic	$ 0.05	$ 5.79	$ 5.84			
Claim Submission	Manual	$ 1.09	$ 5.65	$ 6.74	$ 0.99	$ 2.55	$ 3.54
	Electronic	$ 0.10	$ 3.10	$ 3.20			
Attachments	Manual	$ 0.83	$ 5.54	$ 6.37	$ 0.69	$ 2.24	$ 2.93
	Electronic	$ 0.14	$ 3.30	$ 3.44			
Coordination of Benefits	Manual	$ 2.16	N/A	$ 2.16	$ 1.93	N/A	$ 1.93
	Partial	$ 0.23	N/A	$ 0.23	$ 0.00	N/A	$ 0.00
	Electronic	$ 0.23	N/A	$ 0.23			
Claim Status Inquiry	Manual	$ 4.59	$ 11.37	$ 15.96	$ 4.55	$ 7.08	$ 11.63
	Partial	$ 0.04	$ 6.83	$ 6.87	$ 0.00	$ 2.54	$ 2.54
	Electronic	$ 0.04	$ 4.29	$ 4.33			
Claim Payment	Manual	$ 0.60	$ 4.10	$ 4.70	$ 0.51	$ 1.48	$ 1.99
	Electronic	$ 0.09	$ 2.62	$ 2.71			
Remittance Advice	Manual	$ 0.60	$ 4.76	$ 5.36	$ 0.52	$ 1.90	$ 2.42
	Partial	$ 0.08	$ 4.58	$ 4.66	$ 0.00	$ 1.72	$ 1.72
	Electronic	$ 0.08	$ 2.86	$ 2.94			

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.

Average Cost and Savings Opportunity per Transaction by Mode, Dental, 2023 CAQH Index

Transaction	Mode	Plan Cost	Provider Cost	Industry Cost	Plan Cost Savings Opportunity	Provider Cost Savings Opportunity	Industry Cost Savings Opportunity
Eligibility and Benefit Verification	Manual	$ 3.22	$ 7.94	$ 11.16	$ 3.19	$ 5.29	$ 8.48
	Partial	$ 0.03	$ 4.07	$ 4.10	$ 0.00	$ 1.42	$ 1.42
	Electronic	$ 0.03	$ 2.65	$ 2.68			
Claim Submission	Manual	$ 0.49	$ 4.27	$ 4.76	$ 0.39	$ 2.06	$ 2.45
	Electronic	$ 0.10	$ 2.21	$ 2.31			
Coordination of Benefits	Manual	$ 0.39	N/A	$ 0.39	$ 0.32	N/A	$ 0.32
	Partial	$ 0.07	N/A	$ 0.07	$ 0.00	N/A	$ 0.00
	Electronic	$ 0.07	N/A	$ 0.07			
Claim Status Inquiry	Manual	$ 3.22	$ 11.60	$ 14.82	$ 3.19	$ 8.88	$ 12.07
	Partial	$ 0.03	$ 4.70	$ 4.73	$ 0.00	$ 1.98	$ 1.98
	Electronic	$ 0.03	$ 2.72	$ 2.75			
Claim Payment	Manual	$ 0.27	$ 3.12	$ 3.39	$ 0.26	$ 0.80	$ 1.06
	Electronic	$ 0.01	$ 2.32	$ 2.33			
Remittance Advice	Manual	$ 0.27	$ 3.31	$ 3.58	$ 0.23	$ 1.13	$ 1.36
	Partial	$ 0.04	$ 2.81	$ 2.85	$ 0.00	$ 0.63	$ 0.63
	Electronic	$ 0.04	$ 2.18	$ 2.22			

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.

Estimated National Volume and Cost Savings Opportunity by Mode, Medical, 2023 CAQH Index

Transaction	Mode	Plan National Volume	Provider National Volume	Plan National Cost Savings Opportunity	Provider National Cost Savings Opportunity	Industry National Cost Savings Opportunity
		(in millions)			(in millions $)	
Eligibility and Benefit Verification	Manual	73	383	$ 332	$ 8,925	$ 9,257
	Partial	792	3,550			
	Electronic	14,098	11,030			
Prior Authorization	Manual	51	36	$ 177	$ 317	$ 494
	Partial	45	58			
	Electronic	44	46			
Claim Submission	Manual	105	774	$ 104	$ 1,974	$ 2,078
	Electronic	5,068	4,399			
Attachments	Manual	50	47	$ 35	$ 105	$ 140
	Electronic	20	23			
Acknowledgements	Manual	0	N/R	N/R	N/R	N/R
	Partial	26	N/R			
	Electronic	5,694	N/R			
Coordination of Benefits	Manual	12	N/A	$ 23	N/A	$ 23
	Partial	0	N/A			
	Electronic	110	N/A			
Claim Status Inquiry	Manual	60	145	$ 273	$ 2,954	$ 3,227
	Partial	492	759			
	Electronic	1,586	1,234			
Claim Payment	Manual	232	274	$ 118	$ 406	$ 524
	Electronic	624	582			
Remittance Advice	Manual	73	88	$ 38	$ 663	$ 701
	Partial	78	287			
	Electronic	1,152	928			
Transaction Total	**Manual**	**656**	**1,747**	**$ 1,100**	**$ 15,344**	**$ 16,444**
	Partial	**1,433**	**4,654**			
	Electronic	**28,396**	**18,242**			

*Transaction volume is less than 1 million.
N/A = Not Applicable
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.

Estimated National Volume and Cost Savings Opportunity by Mode, Dental, 2023 CAQH Index

Transaction	Mode	Plan National Volume	Provider National Volume	Plan National Cost Savings Opportunity	Provider National Cost Savings Opportunity	Industry National Cost Savings Opportunity
		(in millions)			(in millions $)	
Eligibility and Benefit Verification	Manual	24	37	$ 77	$ 463	$ 540
	Partial	76	188			
	Electronic	381	256			
Claim Submission	Manual	57	128	$ 22	$ 264	$ 286
	Electronic	380	309			
Attachments	Manual	34	0	N/R	N/R	N/R
	Electronic	18	0			
Acknowledgements	Manual	0	N/R	N/R	N/R	N/R
	Partial	0	N/R			
	Electronic	337	N/R			
Coordination of Benefits	Manual	10	N/A	$ 3	N/A	$ 3
	Partial	6	N/A			
	Electronic	17	N/A			
Claim Status Inquiry	Manual	39	30	$ 124	$ 348	$ 472
	Partial	30	40			
	Electronic	27	26			
Claim Payment	Manual	292	254	$ 76	$ 203	$ 279
	Electronic	78	116			
Remittance Advice	Manual	271	168	$ 62	$ 252	$ 314
	Partial	11	99			
	Electronic	159	174			
Transaction Total	**Manual**	**727**	**617**	**$ 364**	**$ 1,530**	**$ 1,894**
	Partial	**123**	**327**			
	Electronic	**1,397**	**881**			

N/A = Not Applicable
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.

Methodology & Transaction Definitions

Introduction

The CAQH Index tracks the industry adoption of electronic administrative transactions over time. It measures industry volume, spend, cost avoided and the cost savings opportunity associated with switching from conducting partially electronic and manual transactions to using fully electronic transactions. The 2023 CAQH Index is the eleventh annual report which collects data from medical and dental plans and providers covering more than half of the insured United States population, according to enrollment reports from the AIS Directory of Health Plans and NADP Dental Health Plan Profiles.[43,44]

Recruitment

Medical and dental plans and providers were voluntarily recruited to participate in the study using direct outreach through email and telephone, industry conferences, webinars, the CAQH website and social media. CAQH managed the medical and dental plan and provider recruitment, including developing the recruitment list and sending email invitations, while collaborating with NORC at the University of Chicago[45] on the recruitment, data collection and analysis of data for medical and dental providers. Plans and providers 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 contacted and updated the legacy contact list and hospital list to recruit additional provider participants. CAQH also partnered with CAQH member organizations, the CAQH Index Advisory Council, the Workgroup for Electronic Data Interchange (WEDI), the American Dental Association (ADA), the American Hospital Association (AHA) and the American Medical Association (AMA) to increase participation in the survey.

All CAQH Index participants receive a benchmark report comparing their data to the aggregate industry results. Medical and dental providers were also offered honorariums to encourage participation in the survey.

Data Collection

The CAQH Index collected data through a voluntary online survey tool from July to September 2023. A fillable PDF and Excel version of the survey were also offered to participants. Plan and provider data are representative of the 2022 calendar year, January 1 to December 31, 2022. The medical plan survey collected data on ten administrative transactions and the dental plan survey collected data on nine administrative transactions.

The medical plan survey also included supplemental questions regarding:

- Member not found rate for eligibility and benefit verification.
- Number of claim payments paid in bulk.
- Interactions with FHIR for Patient Access and Provider Directory APIs.
- Use of artificial intelligence (AI) for clinical and administrative tasks. This question was also included on the dental plan survey.

The medical provider survey collected data on eight administrative transactions and three pharmacy transactions: Prescription/Drug Prior Authorization (NCPDP SCRIPT), Realtime Pharmacy Benefit Prescription Check (NCPDP RTPB) and Formulary and Benefit (NCPDP Standard) while the dental provider survey included six administrative transactions.

For medical and dental providers, this year's tool included supplemental questions regarding:

- Provider attribution for Value-Based Payment (VBP) contracts.
- Use of artificial intelligence (AI) for clinical and administrative tasks.

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

To ensure that responses were accurate, logic checks were embedded in the online survey tool to check for data reliability and accuracy for all transactions. Logic checks included a prompted error if transaction volumes or times were outside specified bounds. For example, if electronic times were three minutes or greater, participants were asked to provide an explanation of the process.

Even with logic checks, some responses were insufficient or out of range. When this occurred, NORC followed up with respondents to obtain clarity. If clarity was not obtained, values were imputed using the following rules.

The 2023 CAQH Index collected data on the following administrative transactions:

Transaction	Transaction Standard	Definition
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 plan and a response from the health plan to the provider.
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 delivery of healthcare services.
Attachments	ASC X12N 275, HL7 CDA*	Additional information submitted with claims for payment, claim appeals or prior authorization, such as medical records to support a claim or 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 health care 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 explaining a payment.

† 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.

- For processing time values, if a respondent provided information that was greater than the median value plus the Interquartile Range multiplied by 2, the processing time was imputed and capped at the median value plus the Interquartile Range multiplied by 2. In cases where partial time was the same as manual time, partial time was imputed.
- For salary values, if a respondent provided information that was greater than the median value plus the Interquartile Range multiplied by 2, the processing time was imputed with the median value plus the Interquartile Range multiplied by 3. In cases where the reported salary was less than the Median-Interquartile Range, the salary was imputed to the Median-Interquartile Range, or $20,000, whichever was lower.

Medical plans represented 209 million covered lives, or 60 percent of the United States enrolled population. Medical plans accounted for 3 billion

Basic Characteristics of Data Contributors, 2017-2023 CAQH Index

	2017 Index	2018 Index	2019 Index	2020 Index	2021 Index	2022 Index	2023 Index
MEDICAL							
Plan Members (total in millions)	155	160	154	167	202	204	209
Proportion of Total Enrollment (%)	51	49	47	51	61	60	60
Number of Claims Received (total in billions)	2	2	2	2	2	3	3
Number of Transactions (total in billions)	6	8	8	10	12	14	15
DENTAL							
Plan Members (total in millions)	117	106	111	112	116	126	127
Proportion of Total Enrollment (%)	48	44	44	43	44	48	45
Number of Claims Received (total in billions)	182	177	185	186	156	201	199
Number of Transactions (total in billions)	650	731	726	740	703	828	851

claims received and 15 billion transactions annually. In comparison, dental plans represented 127 million covered lives and approximately 45 percent of the enrolled population. Dental plans represented a smaller portion of volume with 198 million claims received and a total of 852 million transactions.

Annual Volume Reported by Medical and Dental Plans, 2022-2023 CAQH Index

Transaction	Number of Transactions (in millions)				Number of Transactions (per member)			
	2022 Index		2023 Index		2022 Index		2023 Index	
	Medical	Dental	Medical	Dental	Medical	Dental	Medical	Dental
Eligibility and Benefit Verification	7,546	190	8,383	218	37	2	39	2
Prior Authorization	42	N/R	54	N/R	<1	N/R	<1	N/R
Claim Submission	2,866	201	3,103	199	14	2	15	2
Attachments	46	6	37	6	<1	<1	<1	<1
Acknowledgements	1,579	24	1,457	25	8	<1	7	<1
Coordination of Benefits	76	2	60	2	<1	<1	<1	<1
Claim Status Inquiry	901	63	1,282	43	4	1	6	<1
Claim Payment	411	157	299	169	2	1	1	1
Remittance Advice	897	185	782	190	4	1	4	2
Total Transactions	**14,364**	**828**	**15,457**	**852**	**70**	**7**	**72**	**7**

N/R = Not Reported

Metrics

All results were aggregated to ensure data privacy for each participant. Benchmarks were calculated and reported only for those transactions where three or more plans participated. The following metrics were reported for each transaction:

Adoption Rate — The degree to which medical and dental 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 medical and dental plans and providers weighted to a national level.

Cost per Transaction — The labor costs (e.g., salaries, wages, personnel benefits and related overhead costs) associated with fully electronic, partially electronic, and fully manual transactions as reported by medical and dental plans and providers. Costs include the labor time required to conduct the transaction only. This does not include the time and cost associated with gathering information for the transaction and follow-up. Costs do not include system costs (e.g., maintaining, building or buying software or other equipment).

Estimated Spend — The amount that medical and dental plans and providers spend conducting a transaction in total and by modality.

Cost Avoided — The amount that medical and dental plans and providers have saved by not conducting transactions using partially electronic or fully manual modes.

Cost Savings Opportunity — The cost savings that could be achieved by switching the remaining partially electronic and fully manual transactions to fully electronic transactions.

Time to Conduct — The time required for providers to conduct a fully electronic, partially electronic and fully manual transaction.

Time Savings Opportunity — The time that providers could save by switching the remaining partially electronic and fully manual time to conduct a transaction to a fully electronic time.

Overview of Reported Data and Benchmarks per Transaction, 2023 CAQH Index

Transaction	Adoption		Cost per Transaction		National Spend and Cost Savings Opportunity		Time to Conduct a Transaction		First Index Report Year Studied	
	Medical	Dental	Medical	Dental	Medical	Dental	Medical	Dental	Medical	Dental
Eligibility and Benefit Verification	●	●	●	●	●	●	●	●	2013	2015
Prior Authorization	●	N/R	●		●		●		2013	
Claim Submission	●	●	●	●	●	●	●	●	2013	2015
Attachments	●	●	●		●		●		2014	2016
Acknowledgements	●	●							2017	2021
Coordination of Benefits	●	●	●	●	●	●			2015	2022
Claim Status Inquiry	●	●	●	●	●	●	●	●	2013	2015
Claim Payment	●	●	●	●	●	●	●	●	2013	2015
Remittance Advice	●	●	●	●	●	●	●	●	2013	2016

N/R = No Benchmark Reported (Insufficient Data)

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 (Manual) — Transactions requiring end-to-end human interaction such as telephone, mail, fax and email.

For the figures depicting the medical and dental plan adoption rates, adoption rates were calculated by mode as a proportion of the total volume reported by plans and represent the percent distribution of transactions conducted by mode.

Adoption Rate (per mode) =
Volume Reported by Plans (per mode) /
Total Volume Reported by Plans

The annual percentage point change is computed as the arithmetic difference between percentages.

Provider Weights

Medical and dental provider results are based on a random sample which are weighted to provide representative estimates of the medical and dental provider populations.

For medical providers, results are estimated based on the size and type of practice as well as specialty of the responding provider. The groups were defined using the AMA Benchmark Practice Survey[46] and the American Association of Medical Colleges (AAMC) Physician Specialty Data Report.[47] The distribution of providers in the population was determined using active and self-attested MD/DO information contained within CAQH's Provider Data Portal.[48] Size and type of practice included: less than 5 physicians, 5-50+ physicians and hospitals. Specialty groups included: Generalist, Specialist, Behavioralist and Hospitalist.

For dental providers, results are estimated based on the provider's practice size and Dental Support Organization (DSO) affiliation status. The distribution of providers in the population was determined using the American Dental Association (ADA) Survey of Dental Practice.[49] The distribution of dental providers were split into 3 groups: non-DSO affiliated solo practice, DSO affiliated solo or group practice and non-DSO affiliated group practice.

The following table shows the percent of the medical provider population represented in each group:

Specialty	Size	Percent
Generalist	1-5	26.9%
Generalist	5-50+	19.8%
Specialist	1-5	19.6%
Specialist	5-50+	18.1%
Behavioralist	1-5	3.2%
Behavioralist	5-50+	2.4%
Hospitalist	Hospital	10.0%

The following table shows the percent of the dental provider population represented in each group:

Type of Entity	Percent
Non-DSO Affiliated Solo Practice	36%
DSO Affiliated Solo or Group Practice	13%
Non-DSO Affiliated Group Practice	51%
Total	100%

Provider weights were calculated by dividing the percent of the sample in each group by the percent of the population in each group as defined by the CAQH's Provider Data Portal and the ADA. Since not all providers submit every transaction, provider weights were calculated individually for each transaction.

Provider Weight (per transaction) = Percentage of the Sample in Each Group Reporting the Transaction / Percentage of the Population in Each Group

Estimated Volume

Plan Estimated Volume

The total transaction volume is estimated based on the proportion of covered lives represented by participating medical plans using the AIS Directory of Health Plans or reported enrollment for medical plans, whichever value was higher. For dental plans the plan reported enrollment was used for estimation. To determine the percent of covered lives represented, the total enrollment from the AIS Directory of Health Plans[50] was used for medical plans and the NADP Dental Health Plan Profiles[51] for dental plans. The extrapolated national volume for each transaction is calculated by mode as follows for both medical and dental plans:

Extrapolated Plan Volume (per modality) = Volume Reported by Plans / Percent of Covered Lives Represented by CAQH Data Contributors

Provider Estimated Volume

Provider volume is calculated first by determining the percentage of each transaction that was conducted by mode (electronic, partial or manual) for each provider.

Provider Mode Distribution (per transaction) = Provider Reported Volume for Mode (per transaction) * Provider Reported Volume for All Modes (per transaction)

The provider specific mode distribution was then averaged among providers and weighted by the size and specialty groups listed above.

Average Provider Mode Distribution (per transaction) = Average(Provider Weight (per transaction)* Provider Modality Percentage (per transaction))

To account for small provider cell sizes for some transactions by mode, the plan adoption rate per mode is averaged with the weighted average provider mode distribution. This generates a single estimated percentage by modality for each transaction.

Provider Distribution (per mode per transaction) = Average(Plan Adoption Rate (per mode per transaction), Average Provider Modality Percentage (per transaction))

Given that each transaction for a plan also occurs for a provider, the national estimated plan volume (by mode) is assumed to be same value as the national estimated provider volume (by mode). To determine the provider volume for each mode, the average provider distribution is multiplied by the national estimated provider volume.

Extrapolated Provider Volume (per modality) = Total Plan Estimated Volume for a Given Transaction* Average Modality Percentage

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

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 and dental plans, the cost per transaction by mode is a weighted average based on the data submitted by participants reporting a valid result using the proportion of their membership enrollment. The calculation requires both the reporting of a valid transaction volume and transaction cost by a survey participant 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, average staff time to conduct a transaction and cost per transaction for each mode. The cost calculation followed a multi-step process to calculate weighted costs per transaction for medical and dental providers:

The time per transaction by mode and reported salary were averaged using the provider weights stated above, which account for both size and specialization of practice.

Time per Transaction (per mode) = Average(Provider Weight (per transaction)* Provider Reported Time per Transaction (per Mode, in minutes))

Average Salary = Average(Provider Weight (per transaction)* Provider Reported Salary)

The average loaded salary per minute per mode for each provider was created by multiplying the average salary by a specific loading factor to account for benefit and overhead costs and then dividing that number by minutes in a work year (40 hours/week, 52 weeks/year or 124800 minutes).

Loaded Average Salary (per mode per provider, in minutes) = Average Salary * Loading Factor / Minutes in Work Year

The individual provider loaded cost per transaction per mode was calculated by multiplying the average loaded salary per minute for each responding provider with the average time per transaction by mode among all providers.

Loaded cost (per provider per transaction per mode) = Loaded Average Salary per minute (per mode per provider) * Time per Transaction (per mode, in minutes)

The average cost per transaction was calculated using the individual provider loaded cost per transaction per mode and the provider weights stated above.

Cost per Transaction (per modality) = Average (Loaded cost (per provider per transaction per mode) * Provider Reported Time per Transaction (per Mode))

Estimated Medical and Dental Spend, Cost Savings Opportunity and Cost Avoided, 2023 CAQH Index (in millions)

	Manual Spend*	Estimated Spend	Cost Savings Opportunity	Electronic Spend	Cost Avoided
MEDICAL					
Eligibility and Benefit Verification	$ 187,928	$ 42,473	$ 9,257	$ 33,216	$ 145,455
Prior Authorization	$ 2,029	$ 1,312	$ 494	$ 818	$ 717
Claim Submission	$ 34,865	$ 18,631	$ 2,078	$ 16,553	$ 16,234
Attachments	$ 447	$ 381	$ 140	$ 241	$ 66
Coordination of Benefits	$ 263	$ 51	$ 23	$ 28	$ 212
Claim Status Inquiry	$ 34,123	$ 12,485	$ 3,227	$ 9,258	$ 21,638
Claim Payment	$ 4,023	$ 2,844	$ 524	$ 2,320	$ 1,179
Remittance Advice	$ 6,989	$ 4,534	$ 701	$ 3,833	$ 2,455
Total	**$ 270,667**	**$ 82,711**	**$ 16,444**	**$ 66,267**	**$ 187,956**
DENTAL					
Eligibility and Benefit Verification	$ 5,369	$ 1,829	$ 540	$ 1,289	$ 3,540
Claim Submission	$ 2,081	$ 1,296	$ 286	$ 1,010	$ 785
Coordination of Benefit	$ 12	$ 5	$ 3	$ 2	$ 7
Claim Status Inquiry	$ 1,435	$ 739	$ 472	$ 267	$ 696
Claim Payment	$ 1,254	$ 1,141	$ 279	$ 862	$ 113
Remittance Advice	$ 1,578	$ 1,293	$ 314	$ 979	$ 285
Total	**$ 11,729**	**$ 6,303**	**$ 1,894**	**$ 4,409**	**$ 5,426**
MEDICAL AND DENTAL INDUSTRY					
Total	**$ 282,396**	**$ 89,014**	**$ 18,338**	**$ 70,676**	**$ 193,382**

*Spend if all transactions were conducted manually.

Estimated Spend, Cost Avoided and Cost Savings Opportunity

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. The total spend per transaction is equal to the sum of spend for each mode per transaction.

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 modes by the manual cost per transaction.

Estimated Cost Savings Opportunity

The cost 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 cost 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.

Time Savings Opportunity

The time savings opportunity per transaction was estimated using the arithmetic difference between the weighted average time for providers to conduct either a manual or partially electronic transaction and a fully electronic transaction.

Average, Minimum and Maximum Provider Time Spent Conducting Transactions, Medical, 2023 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 Savings Opportunity (minutes)
Eligibility and Benefit Verification	Manual	20	3	60	16
	Partial	8	<1	19	4
	Electronic	4	<1	10	
Prior Authorization	Manual	22	2	48	11
	Partial	16	1	45	5
	Electronic	11	<1	27	
Claim Submission	Manual	10	1	37	5
	Electronic	5	<1	20	
Attachments	Manual	11	<1	37	5
	Electronic	6	<1	20	
Claim Status Inquiry	Manual	24	<1	63	17
	Partial	12	<1	30	5
	Electronic	7	<1	20	
Claim Payment	Manual	7	<1	20	3
	Electronic	4	<1	10	
Remittance Advice	Manual	9	1	25	5
	Partial	8	1	21	4
	Electronic	4	<1	10	
Total Time Savings Opportunity (Manual)					**62**
Total Time Savings Opportunity (Partial)					**18**

Average, Minimum and Maximum Provider Time Spent Conducting Transactions, Dental, 2023 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 Savings Opportunity (minutes)
Eligibility and Benefit Verification	Manual	13	1	30	9
	Partial	7	<1	17	3
	Electronic	4	<1	11	
Claim Submission	Manual	7	<1	20	4
	Electronic	3	<1	10	
Claim Status Inquiry	Manual	18	1	45	13
	Partial	8	<1	17	3
	Electronic	5	1	11	
Claim Payment	Manual	5	<1	11	1
	Electronic	4	<1	10	
Remittance Advice	Manual	6	<1	15	2
	Partial	4	<1	11	<1
	Electronic	4	<1	10	
Total Time Savings Opportunity (Manual)					**29**
Total Time Savings Opportunity (Partial)					**6**

Some over-counting and under-counting of transaction volume may occur:

- Some transactions may be reported as fully electronic transactions even if they were initially sent as a manual transaction and then converted to a fully electronic transaction by a practice management system. No direct relationships between or among the volumes of transactions should be inferred.
- Some eligibility and benefit verification transactions 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.
- Some claim submission transactions 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 medical service information, such as for value based payments and capitation arrangements.
- Some transactions may not result in a claim payment transaction if there is no payment due from the health plan after adjudication, such as when a patient is meeting the annual deductible.
- Due to availability of data and the ability to report data in the required format, health plan and providers may be unable to report values for all modes. Blank cells may not indicate that a mode is not used to complete a transaction but rather that data is not available.

The results of this report are based on surveys and may be subject to response bias.

The CAQH Index uniquely tracks only direct costs:

- Costs reported include the labor time required to conduct the transaction, not the time and cost associated with gathering information for the transaction and follow-up. System costs 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. Sampling factors such as salary increases or declines, learning curve for a new employee to process a transaction and the mix of specialty type may impact the trending of data.
- The ability to report on all transactions exchanged is dependent on accurate reporting practices used by health plans and providers. Due to employment changes and increases in utilization after the pandemic emergency, some health plans and providers may have had new staff gathering and submitting data, increasing data variability.
- The cost calculation methodology calculates each step (salary, time and unit cost) as separate results on average based on the provider distribution by size and specialty. This is designed to create a modular and replicable process for cost calculation that can be useful to the industry. However, this assumes that the time and unit cost are independent of each other at the provider level. If results were explicitly calculated at the provider group or respondent level, there may be some slight variation in the overall outcome.

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2023 CAQH Index Advisory Council Member	Organization
Amy Neves	Aetna
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Tab Harris	Florida Blue
Terrence Cunningham	American Hospital Association
Thomas L. Meyers	America's Health Insurance Plans
Viet Nguyen	HL7

Note: To ensure data privacy, CAQH does not make the list of health plan or provider data contributors available.

Endnotes

1 Ezekiel Emanuel, Michael Osterholm, Celine Gounder, "A National Strategy for the 'New Normal' of Life With COVID," JAMA, January 6, 2022, https://jamanetwork.com/journals/jama/fullarticle/10.1001/jama.2021.24282.

2 Ethan Poapowitz, "Addressing the healthcare staffing shortage," Definitive Healthcare, September 2023, https://www.definitivehc.com/resources/research/healthcare-staffing-shortage.

3 Donald Berwick, Andrew Hackbarth, "Eliminating waste in US health care," JAMA, April, 11, 2012, https://jamanetwork.com/journals/jama/article-abstract/1148376. This article provides a range of estimates for "administrative complexity" based on previous research. This range was used alongside the National Health Expenditures to estimate how that range would be represented in current NHE values.

4 "National Health Expenditure Data - Historical," Centers for Medicare and Medicaid Services, December, 2023, https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/historical. Healthcare administrative complexities are based on the value for total national health expenditures (NHE), less investment (research, structures and equipment) and public health outlays by federal and state governments.

5 Neha Patel, Shubham Singhal, "What to Expect in US Healthcare in 2023 and Beyond," McKinsey, January 9, 2023, https://www.mckinsey.com/industries/healthcare/our-insights/what-to-expect-in-us-healthcare-in-2023-and-beyond.

6 Junaid Bajwa, Usman Munir, Aditya Nori, Bryan Williams, "Artificial intelligence in healthcare: transforming the practice of medicine," Future Healthcare Journal, July 2021, https://doi.org/10.7861/fhj.2021-0095.

7 Katie Adams, "Healthcare data breaches by the numbers: 9 stats," Beckers Hospital Review, March 23, 2022, https://www.beckershospitalreview.com/cybersecurity/healthcare-data-breaches-by-the-numbers-9-stats.html.

8 Ezekiel Emanuel, Michael Osterholm, Celine Gounder, "A National Strategy for the 'New Normal' of Life With COVID," JAMA, January 6, 2022, https://jamanetwork.com/journals/jama/fullarticle/10.1001/jama.2021.24282.

9 Richard Payerchin, "MGMA 2022: How COVID-19 introduced a new cyber threat to practices, health systems," Physician Practice, October 11, 2022, https://www.physicianspractice.com/view/mgma-2022-how-covid-19-introduced-a-new-cyber-threat-to-practices-health-systems.

10 Karen Schechter, "How to address the shortage of health care workers," Medical Economics, January 20, 2023, https://www.medicaleconomics.com/view/how-to-address-the-shortage-of-health-care-workers.

11 Deborah Filipek, "Healthcare News of Note: Healthcare organizations continue to deal with turnover and workforce", HFMA, July 21, 2023, https://www.hfma.org/leadership/healthcare-news-of-note-healthcare-organizations-continue-to-deal-with-turnover-and-workforce-shortages/.

12 Patrick Boyle, "Aging patients and doctors drive nation's physician shortage," American Association of Medical Colleges, June 11, 2021, https://www.aamc.org/news/aging-patients-and-doctors-drive-nations-physician-shortage.

13 Matthew Huddle, Josh Kellar, Krishna Srikumar, Krishna Deepak, Daniel Martines, "Generative AI Will Transform Health Care Sooner Than You Think," Boston Consulting Group, June 22, 2023, https://www.bcg.com/publications/2023/how-generative-ai-is-transforming-health-care-sooner-than-expected.

14 Rom Hendler, "Upgrading Healthcare Security Strategies To Combat AI-Based Threats," Forbes, August 14, 2023, https://www.forbes.com/sites/forbestechcouncil/2023/08/14/upgrading-healthcare-security-strategies-to-combat-ai-based-threats/?sh=225c0092795c.

15 "Security, Privacy Risks of Artificial Intelligence in Healthcare," Health IT Security, December 1, 2021, https://healthitsecurity.com/features/security-privacy-risks-of-artificial-intelligence-in-healthcare.

16 To determine what factors contributed the most to spend, total spend and per transaction spend were calculated assuming one variable remained constant from last year. Variables included provider staff time and salaries, and transaction volume by mode. Findings indicated that time had the greatest overall impact on overall spend.

17 Many factors influence the cost savings opportunities: plan and provider transaction volume, cost to conduct transactions and electronic adoption. The influence of these contributing factors may change year-over-year.

18 "How hybrid work has changed the way people work, live, and shop," McKinsey, July 13, 2023, https://www.mckinsey.com/mgi/our-research/empty-spaces-and-hybrid-places-chapter-1.

19 Of the $82.7 billion in medical spend, providers account for 97 percent and plans account for 3 percent. Of the $6.3 billion in dental spend, providers account for 93 percent and plans account for 7 percent.

20 Of the $16.4 billion in medical savings opportunity, providers account for 93 percent and plans account for seven percent. Of the $1.9 billion in dental savings opportunity, providers account for 81 percent and plans account for 19 percent.

21 "Addressing the healthcare staffing shortage," Definitive Healthcare, September 2023, https://www.definitivehc.com/resources/research/healthcare-staffing-shortage.

22 "2022 CAQH Index," CAQH, January 31, 2023, https://www.caqh.org/insights/caqh-index-report.

23 Kelly Gooch, "US healthcare workers walk off the job: 22 strikes in 2023," Beckers Hospital Review, October 27, 2023, https://www.beckershospitalreview.com/hr/us-healthcare-workers-walk-off-the-job-7-strikes-in-2023.html.

24 Diaz, Naomi, "Healthcare data breaches have doubled in 3 years: 5 things to know," Becker's Hospital Review, November 28, 2022, https://www.beckershospitalreview.com/cybersecurity/healthcare-data-breaches-have-doubled-in-3-years-5-things-to-know.html.

25 "Poised to Transform: Study Reveals AI to Be Pervasive in Hospital Revenue Cycle by 2023," Change Healthcare, 2021, https://www.changehealthcare.com/insights/ai-transforming-hospital-rcm.

26 Gretchen Berlin, Ani Bilazarian, Joyce Chang, Stephanie Hammer, "Reimagining the nursing workload: Finding time to close the workforce gap," McKinsey, May 26, 2023, https://www.mckinsey.com/industries/healthcare/our-insights/reimagining-the-nursing-workload-finding-time-to-close-the-workforce-gap?stcr=D478CE3A-1BA54902894BD8EC9EEBB223&cid=other-eml-alt-mip-mck&hlkid=b3-2c75f163de49d5a464b650e79a0110&hctky=14720549&hdpid=4ae74896-275a-4e7c-9b6e-45c3a539841f.

27 Nona Tepper, "How Florida Blue is using AI to speed up prior authorizations," ModernHealthcare, November 22, 2023, https://www.modernhealthcare.com/insurance/florida-blue-ai-artificial-intelligence-prior-authorization-customer-service.

28 See https://ndedic.org/Work-Group-1-Eligibility-&-Benefits for more information about the current work group.

29 Chris Harrop, "Healthcare in 2023: Staffing is still the biggest challenge for practices as financial worries grow," MGMA, September 21, 2022, https://www.mgma.com/mgma-stats/healthcare-in-2023-staffing-is-still-the-biggest-challenge-for-practices-as-financial-worries-grow.

30 87 Fed. Reg. 76,238, December 12, 2022, https://www.federalregister.gov/public-inspection/2022-26479/medicare-and-medicaid-programs-advancing-interoperability-and-improving-prior-authorization.

31 Ashley Thompson, "American Hospital Association Urges CMS to Finalize the Improving Prior Authorization Processes Proposed Rule," AHA, October 27, 2023, https://www.aha.org/lettercomment/2023-10-27-aha-urges-cms-finalize-improving-prior-authorization-processes-proposed-rule#:~:text=Provider%20Burden&text=In%20response%20to%20a%20recent,increased%20in%20the%20last%20year.

32 MGMA Annual Regulatory Burden Report - 2022", Medical Group Management Association, October 11, 2022, https://www.mgma.com/federal-policy-resources/mgma-annual-regulatory-burden-report-2022.

33 Andis Robeznieks, "Once just a burden, prior authorization has become a nightmare," American Medical Association, May 3, 2023, https://www.ama-assn.org/practice-management/prior-authorization/once-just-burden-prior-authorization-has-become-nightmare.

34 Kevin B. O'Reilly, "2 big insurers take small steps to ease prior authorization burden," American Medical Association, September 18, 2023, https://www.ama-assn.org/practice-management/prior-authorization/2-big-insurers-take-small-steps-ease-prior-authorization.

35 Jeff Lagasse, "Cigna to remove 25% of medical services from prior authorization," Healthcare Finance, August 24, 2023, https://www.healthcarefinancenews.com/news/cigna-remove-25-medical-services-prior-authorization.

36 Kara Contreary Saumya Chatrath David J. Jones Genna Cohen Daniel Miller Eugene Rich, "Consolidation And Mergers Among Health Systems In 2021: New Data From The AHRQ Compendium," HealthAffairs, June 20, 2023, https://www.healthaffairs.org/content/forefront/consolidation-and-mergers-among-health-systems-2021-new-data-ahrq-compendium.

37 Ariana Portalatin, "DSO consolidation in 2023: 12 fast facts to know," Becker's Dental + DSO Review, June 29th, 2023, https://www.beckersdental.com/dso-dpms/41362-dso-consolidation-in-2023-12-fast-facts-to-know.html.

38 The American Dental Association (ADA) updated the ADA Dental Claim Form to address claim submission gaps which is expected to go live in January 2024.

39 David Burger, "Dental Insurance Hub: ADA council's actions support dentist claims and record-keeping," ADANews, May 31, 2023, https://adanews.ada.org/ada-news/2023/may/dental-insurance-hub-ada-council-s-actions-support-dentist-claims-and-record-keeping?_gl=1*kqm14n*_ga*MTgwOTQ5NjU4My4xNjk3MDMyNzEw*_ga_X8X57NRJ4D*MTY5OTU1NDE1My43LjAuMTY5OTU1NDE1OC4wLjAuMA..&_ga=2.66523501.211203194.1699554156-1809496583.1697032710

40 Maury Gittleman, "The "Great Resignation" in perspective," Monthly Labor Review, U.S. Bureau of Labor Statistics, July 2022, https://doi.org/10.21916/mlr.2022.20.

41 "The Advantages of Electronic Transactions," ADA, https://www.ada.org/resources/practice/dental-insurance/dental-insurance-resources/optimize-dental-practice-administration-and-efficiencies?_ga=2.42913056.445094001.1699044326-235310756.1692734412.

42 Michael W. Kahn, "Healthcare EFT Claim Payments Rise in 2022 as Nacha Encourages Providers to Use ACH," Nacha, January 10, 2023, https://www.nacha.org/news/healthcare-eft-claim-payments-rise-2022-nacha-encourages-providers-use-ach.

43 AIS Health Data, a Division of Managed Markets Insight and Technology, LLC, AIS's Directory of Health plans: 2022, 2023.

44 National Association of Dental Health Plans, Dental Benefits Report, 2021.

45 NORC at the University of Chicago is an independent research institution that delivers insights and data analysis for government, nonprofits, and businesses. For more information, visit: https://www.norc.org/.

46 "Physician Practice Benchmark Survey," American Medical Association, 2022. https://www.ama-assn.org/about/research/physician-practice-benchmark-survey.

47 "Physician Specialty Data Report," American Association of Medical Colleges, 2021, https://www.aamc.org/data-reports/workforce/data/number-people-active-physician-specialty-2021

48 "Provider Data," CAQH, https://www.caqh.org/solutions/provider-data.

49 "Distribution of dentists according to size of dental practice and affiliation with a dental support organization (DSO) (XLSX)," ADA, May 2023, https://www.ada.org/resources/research/health-policy-institute/dental-practice-research.

50 AIS Health Data, a Division of Managed Markets Insight and Technology, LLC, AIS's Directory of Health plans: 2022, 2023.

51 National Association of Dental Health Plans, Dental Benefits Report, 2021.

How to Participate in the CAQH Index

All medical and dental plans, providers and vendors are encouraged to contribute data to the CAQH Index. Data collection begins in Summer 2024. To participate in the 2024 CAQH Index and for more information, please email insights@caqh.org.

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