2013 U.S. Healthcare Efficiency Index

Electronic Administrative Transaction Adoption and Savings

Revised May 5, 2014

simplifying healthcare administration

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TABLE OF CONTENTS

2013 U.S. Healthcare Efficiency Index

Executive Summary 3

Forward 5

2013 Index: Adoption Rates and Cost Savings 7

- Overall Industry Results 8
- Specific Findings and Observations 13
  - Claim Submission 14
  - Eligibility and Benefit Verification 15
  - Prior Authorization and Referral Certification 16
  - Claim Status Inquiries 17
  - Claim Payment 18
  - Claim Remittance Advice 19

Questions for Future Study 20

Call to Action 22

2013 Index Reporting Standards and Data Submission Guide 24

- Guidelines for Data Collection and Reporting 29

Appendix A. 2014 Index Advisory Council 32

Appendix B. Glossary of Terms Used in This and Prior Index Documents 33

Appendix C. Index Data Submission Information Forms and Data Collection Tool Templates 35

Appendix D. Guiding Principles to Measurement and Reporting 39

Appendix E. HIPAA and Patient Protection and Affordable Care Act Definitions and Standards 41

Appendix F. Data Submission Acknowledgment 42

EXECUTIVE SUMMARY

Administrative costs are part of doing business. But in healthcare, there is a general consensus that the costs of basic business transactions – such as claims and billing, and benefit verification and authorizations – remain too high. While some administrative costs are inescapable, many routine processes can be automated, saving time and money for healthcare providers[1] and insurers. Over the last two decades, healthcare industry-led initiatives, combined with legislation and regulatory mandates, have provided a new framework for improving the efficiency of these processes.

Healthcare providers and health insurance plans are using increasingly sophisticated information technology infrastructures to streamline and simplify the routine exchange of healthcare administrative data. Today, individual providers, facilities, payers, and related business partners conduct more administrative transactions electronically than ever before, streamlining workflows for greater productivity, improving data accuracy, and reducing administrative costs.

The healthcare industry could save billions by continuing the shift from manual to electronic transactions.

For this report, CAQH collected an extensive quantitative dataset on major administrative transactions through its initiative, the U.S. Healthcare Efficiency Index® (Index). Health plans representing over 100 million covered lives contributed to the effort. The dataset includes information from over 1 billion claims and 3 billion transactions. In cooperation with Milliman, Inc., we also surveyed healthcare providers and health plans on the costs of manual and automated transactions, based on publicly available information and proprietary Milliman cost data.

We conclude that the healthcare industry could save billions by continuing the shift from manual to electronic transactions for the six processes studied. We estimate that most of the potential savings from continued automation of routine processes would accrue to healthcare providers and facilities.

Highlights from the 2013 analysis:

1. Electronic **claim submission** had the highest rate of adoption (91 percent) in our study. To get closer to 100 percent may require proactive solutions to encourage electronic submissions from small provider offices.
2. Among the transactions studied, electronic **eligibility and benefit verification** presents the greatest opportunity to eliminate costs permanently and could save health plans and healthcare providers $3 each per transaction.
3. Provider organizations have an opportunity to realize significant administrative cost savings though the migration from manual to electronic transactions for **prior authorization and referral certification**, a potential savings of $13 per transaction for this particularly labor-intensive process.
4. **Claim status inquiries** showed increased use of automation in our study, but the number of telephone calls related to these transactions is static or falling only slightly. The duplicative manual paper- and phone-based legacy processes must be eliminated to realize efficiency.

1 In this report, we often use the shorthand terms "healthcare providers" or "providers" to include hospitals and other healthcare facilities as well as clinical outpatient centers and physicians' offices.

5. In our study, over 40 percent of **claim payments** continued to be made by paper checks. Healthcare providers have been relatively slow to adopt electronic funds transfer (EFT), but use is expected to grow rapidly.
6. Electronic **claim remittance advice and posting and receiving of payments** showed the lowest level of adoption in our study (53 percent), with more than 10 percent being transmitted both electronically and via paper. This is a high-value opportunity to eliminate redundancies.

Overall, the healthcare industry is making progress toward realizing significant savings by replacing manual administrative processes with electronic processes. We estimate that moving to electronic processes for these six transactions alone has already saved the healthcare industry tens of billions of dollars, compared to manual or paper-based processes.

But our analysis suggests there is still more to do:

1. The use of electronic processes among health plans varies widely. For example, in our study of health plan transactions we noted that use of automated transactions for claim remittance advice ranged from a high of 74 percent to a low of 14 percent. (The aggregated average was 53 percent.) The range of automation for electronic claim submission was 73 to 96 percent (aggregated average was 91 percent), and the range for electronic claim payment was 36 to 61 percent (aggregated average was 56 percent).
2. The full value of some electronic transactions cannot be realized until redundant manual paper- and phone-based legacy processes are eliminated.
3. The six transactions studied in this report are only some of the processes that could be automated, with others possibly generating billions of dollars in additional savings.

We invite health plans, healthcare providers, and facilities to contribute data to future analyses, and, in turn, receive critical information about how your organization compares with our benchmark averages.

A Role for All Stakeholders

A sustained effort by providers, hospitals, payers, related business partners, employers, government agencies, and consumers is essential to propel the transition to electronic administrative transactions successfully forward. We encourage healthcare industry stakeholders to support the adoption of electronic administrative transactions, recognize the importance of benchmarking, and actively participate in this initiative by contributing data.

Over time, the value and return on investment for all stakeholders will accelerate as interactions between providers and health plans, as well as intermediaries such as clearinghouses, become less costly and more uniform, predictable, timely, accurate, and secure.

Participation in the Index is open to organizations that are able to extract and report data according to the *Index Reporting Standards and Data Submission Guide*. The Index process allows for participating organizations to receive company-specific reports and briefings on how your organization's results compare to national benchmarks. All data submitted in the Index process is confidential, and is reported only in an aggregated or de-identified format.

FORWARD

The 2013 Index is the inaugural report by CAQH since ownership of the Index was transferred from Emdeon, Inc. The Index raises awareness about improvements in business efficiency of the healthcare delivery system. It provides a national reference point to monitor, track, and measure the adoption of administrative electronic transactions, including claims and payment, and, in the future, other administrative processes, such as coordination of benefits.

We believe that for the Index to be truly meaningful and actionable for stakeholders, it must be based on wide-ranging data and that the measures used must be both reliable and accepted across the industry. The Index draws on consensus-based measures that track industry progress to permanently eliminate wasteful administrative spending and improve efficiency by using automated electronic technology. We worked with the U.S. Healthcare Efficiency Index Advisory Council, an independent, multi-stakeholder group representing a broad view of the healthcare industry, to develop the data collection and reporting methodology.

CAQH also engaged the consulting firm, Milliman, Inc., to conduct a study focused on quantifying the administrative costs incurred by healthcare providers, facilities, and health insurance plans when conducting common administrative transactions. In preparing this report, CAQH and the Advisory Council relied on information collected and prepared by Milliman. CAQH is solely responsible for the contents of this report and any conclusions made herein.

The 2013 methodology was redesigned to capture the most objective, accurate, and valuable snapshot possible of progress by the healthcare industry to adopt electronic administrative transactions and the concurrent reduction in manual and phone-based processes. While these changes preclude comparisons with the findings contained in previous reports, they were essential to enable enhanced benchmarking and tracking moving forward.

The 2013 Index report provides insights on six key administrative transactions[2]:

- Claim Submission
- Eligibility and Benefit Verification
- Prior Authorization and Referral Certification
- Claim Status Inquiries
- Claim Payment
- Claim Remittance Advice and Receiving and Posting Payments

[2] In this report, we use shorthand terms for some transaction types. For example, “eligibility and benefit verification” may be referred to as “eligibility verification,” “prior authorization and referral certification” may be referred to as “prior authorization,” “claim status inquiries” may be referred to as “claim status,” and “claim remittance advice and posting and receiving of payments” may be referred to as “remittance advice.”

For purposes of this report, the scope of each transaction studied was focused narrowly on the sending and receiving of transactions and did not take into account the effort required to prepare information for a given transaction or to work with the results of a transaction response. For example, we did not attempt to study the costs of physicians' or nurses' work time to prepare information for the transactions; only the direct costs of the transactions themselves were counted.

In addition, only pure electronic transactions were considered “electronic,” and those that were defined as partially electronic (e.g., fax) were classified as manual. Further, it should be noted that some transactions, such as telephonic self-service, can be manual for a healthcare provider, but electronic for a health plan. In such cases, we considered the transaction to be automated for plans, but not for providers.

Moving forward, we intend to augment annual Index data collection by broadening the measures considered and expanding the scope to include more payers in the analysis. We will also continue to refine current measures of progress, examine how to measure progress from the perspectives of additional stakeholders, increase the involvement of providers and clearinghouses in the data collection process, and provide thought leadership via reports and analyses.

We believe that building out and consistently measuring and reporting on progress is essential to driving the move to electronically based processes, as these efforts provide important information for stakeholders. Early adopters of electronic transactions know from firsthand experience that cost savings and operational efficiencies are meaningful and real. By sharing information and working together, including engaging business partners to identify ways to eliminate barriers and encourage adoption of electronic transactions, the value and return on investment accelerates for all market participants.

The main focus of the Index Advisory Council in 2013 was on the standardization of metrics for the extensive transactions data gathered from contributing health plans. This standardization helps to ensure that all responding plans interpret the data submission specifications identically and provides an essential baseline for measuring progress in subsequent years. A condensed version of the *2013 Index Reporting Standards and Data Submission Guide* follows this report.

CAQH hopes to foster an industry dialogue about the transition from manual to electronic administrative transactions and raise awareness of the remaining savings opportunity. We encourage and welcome industry input about the findings and methodology used to report progress.

2013 INDEX: ADOPTION RATES AND COST SAVINGS

The primary source of data for the 2013 Index is an extensive dataset collected from health plans voluntarily contributing information based on the *2013 Index Reporting Standards and Data Submission Guide*. Together, these health plans cover 104 million individuals and account for 1.3 billion healthcare claims and more than 3.3 billion claim-related transactions each year.

Data contributors are primarily large, multi-state commercial plans and large, single-state plans. Their responses represent all or most of their lines of business, including commercial, Medicare Advantage, Medicaid HMO, and risk plan claims and transactions. In addition, one smaller regional plan contributed data. The data reflected in the 2013 Index are for the full calendar year 2012. We estimate that data contributed account for approximately 40 percent of the covered U.S. population.

For the 2013 Index, CAQH and Milliman also conducted surveys of health plans and healthcare providers and facilities on costs of manual and automated transaction processes. Health plans responding to the questions on transaction costs were mainly large commercial multi-state plans and large single-state plans, again representing large numbers of enrollees. Healthcare providers ranged from large facilities to small physician groups.

In addition to the data submission and surveys, we interviewed health plan and provider respondents to validate data, gain insights about the way it was gathered, and to get their outlook and perspectives. Finally, Milliman conducted an analysis of the volume of prior authorizations based on its proprietary healthcare management benchmarking data.

The key findings of the 2013 Index are divided into two primary categories: Industry progress overall and specific findings on participant progress by the six types of transactions studied.

Transactions Studied for the 2013 Index

Name	HIPAA ASC X12 Identifier	Description
Claim Submission	837	Submitting claims to a health insurer.
Eligibility Verification	270/271	Sending and receiving information about member eligibility and benefits.
Prior Authorization	278	Sending and receiving information about patient referrals and prior authorizations for care.
Claim Status	276/277	Sending and receiving information about the processing status of a claim.
Claim Payment	835	Sending and receiving payment for a claim.
Remittance Advice	835	Sending and receiving notice of and reasons for payment, adjustment, denial and/or uncovered charges of a medical claim. The Remittance Advice may accompany payment and is sometimes referred to as an explanation of payment (EOP).

Overall Industry Results

Our projections for the U.S. healthcare sector are based on a simple extrapolation of the industry-wide level of adoption of electronic administrative transactions instead of paper-based processes. The projections are intended to show the nationwide impact of full industry use of electronic transactions, including all commercial insurance transactions and transactions performed by commercial health plans supplying Medicare and Medicaid coverage (for example, Medicare Advantage and Medicaid HMO plans).

Here are several highlights of our analysis:

1. Nationwide, we estimate that health plans have the potential to save approximately $460 million annually from increased use of electronic eligibility verification transactions; $410 million from electronic prior authorization processes; $280 million from continued automation of claim status inquiries; and $280 million (combined) from additional use of electronic claim submission, claim payment, and remittance advice/payment posting transactions.
2. We project that healthcare providers and facilities could save more than $3.5 billion from electronic eligibility verification processes and approximately $1.5 billion via electronic prior authorization transactions. For healthcare providers, the combined potential savings from electronic claim submission, claim payment, claim inquiry, and remittance advice processes totals an additional $1.7 billion.
3. Eligibility verification transactions offer the greatest opportunity to reduce cost on a per-transaction basis for the industry as a whole. The cost for each eligibility verification could be reduced from $6.83 (manual transaction cost) to $0.22 (electronic transaction cost), for a total estimated savings of $4 billion annually for health plans and providers combined.
4. The estimated costs of manual prior authorization processes were the highest among the six transactions studied, ranging from $3.95 per transaction for health plans to $18.53 per transaction for healthcare providers.
5. Duplicative or redundant manual processes are still used in conjunction with some electronic processes, particularly for eligibility verification, claim status, and remittance advice processes. Unless eliminated, this redundancy would offset a portion of the estimated cost savings that are possible.

Projecting Numbers of Transactions. To illustrate the potential impact of additional conversion from manual to electronic processes, we projected a nationwide baseline for the aggregate number of the six transactions studied. Table 1 shows tabulated counts of five transactions, based on the data responses representing 104 million enrollees, for the full year 2012 processes: claim submission, eligibility verification, claim status, claim payment, and remittance advice. Milliman independently analyzed transaction counts for prior authorization. The counts do not include retail pharmacy transactions.

Since respondents' data included transactions for public plan enrollees where possible and applicable (Medicare Advantage, Medicaid managed care/risk), we projected to U.S. total private enrollment plus the total managed care/commercially covered population in Medicare, Medicaid, and other public programs – approximately 240 million covered lives.[3]

[3] Our estimate of total enrollment is based on the *AIS Directory of Health Plans*.

For example, based on data from the 1.3 billion claims submitted to health plans representing 104 million enrollees, we project that more than 3 billion claims were submitted to commercial health plans nationwide for payment in 2012. Likewise, we estimate that there were approximately 130 million requests for prior authorization or referral certification.

Of course, health plans and providers perform these transactions using different modalities, or combinations of modalities. It can be difficult to categorize these processes as being either fully electronic or fully manual since electronic modalities may have a manual component and vice versa. For example, there are several ways that a provider may conduct an eligibility verification transaction:

1. A staff member may call the payer and speak with a call center agent.
2. A staff member may call the payer and interact with an automated touch-tone or voice recognition system.
3. A staff member may log into a payer's eligibility portal and enter information.
4. A practice management system may transmit an electronic eligibility request directly to a payer or through a clearinghouse.

Similarly, the information received by the provider may come in multiple forms, including voice, fax, web response, or electronic transaction.

Thus, it is possible for some transactions to be "manual" for one party and "electronic" for the other. For example, if a provider's office staff phones a request to the health plan, and the call is handled by the health plan's interactive voice response (IVR) system, that transaction would be classified as "manual" for the provider and "electronic" for the health plan.

Table 1. Numbers of Transactions in 2012, by Manual vs. Electronic

2013 Index Data Submission (Millions)	Payer		Provider	
	Manual	**Electronic**	**Manual**	**Electronic**
Claim Submission	119	1,178	119	1,178
Eligibility and Benefit Verification	62	1,259	445	876
Claim Status Inquiries	32	258	128	161
Claim Payment	101	113	101	113
Remittance Advice	71	78	87	62
Nationwide Projection (Billions)				
Claim Submission	0.3	2.8	0.3	2.8
Eligibility Verification	0.1	3.0	1.0	2.1
Prior Authorization	0.1	*	0.1	*
Claim Status	0.1	0.6	0.3	0.4
Claim Payment	0.2	0.3	0.2	0.3
Remittance Advice	0.2	0.2	0.2	0.2

Sources: CAQH, Index; Prior Authorization projections by Milliman, Inc.
Note: Transaction counts do not include separate retail pharmacy benefits.
*Less than 50,000,000

For simplicity, we focused on the ends of the spectrum, considering the "primarily manual" or "primarily electronic" forms as the modalities quantified. Likewise, the study focused on the actual resources required to submit a transaction and receive the result, without regard for the resources required to prepare information for the transaction or resolve issues with a transaction. Of course, the costs of physician, nurse, and health plan staff time to prepare for inquiries and responses are likely substantial.

Costs Per Transaction. The second step in calculating potential cost savings is estimating costs per transaction, both for healthcare providers and for health plans. For these calculations, we relied mainly on surveys and an analysis performed by Milliman, Inc.

Table 2 shows the estimated cost of each transaction, by type, to health plans, providers, and the industry overall, as well as the estimated per-transaction savings opportunity by transaction by type.

Table 2. Estimated Per-Transaction Costs and Savings Opportunity by Transaction Type

	Estimated Health Plan Cost	Estimated Provider-Facility Cost	Estimated Total Industry Cost	Potential Savings Opportunity
Claim Submission				
Manual	$0.74	$1.84	$2.58	$2.03
Electronic	$0.26	$0.28	$0.54	
Eligibility and Benefit Verification				
Manual	$3.28	$3.55	$6.83	$6.61
Electronic	$0.06	$0.16	$0.22	
Prior Authorization				
Manual	$3.95	$18.53	$22.48	$17.10
Electronic	$0.18	$5.20	$5.38	
Claim Status Inquiries				
Manual	$3.84	$2.25	$6.09	$5.81
Electronic	$0.06	$0.23	$0.29	
Claim Payment				
Manual	$0.66	$1.83	$2.49	$1.98
Electronic	$0.21	$0.30	$0.51	
Remittance Advice				
Manual	$0.45	$1.83	$2.28	$1.77
Electronic	$0.21	$0.30	$0.51	

Sources: CAQH, Index; Milliman Inc.

To capture transaction costs, Milliman conducted interviews with healthcare provider organizations and facilities representing a range of sizes, provider types, and regions of the country, and with large health plans. Using the information submitted by each organization, Milliman prepared an estimate of the number of minutes required to perform each transaction by type and modality for each organization participating in the study, and estimated the fully loaded per-minute cost for each transaction. Salary information associated with staff positions relevant to each transaction were derived from the Medical Group Management Association (MGMA) *2012 Physician Compensation and Production Survey (PCPS)*.

Milliman added benefits and overhead costs using factors developed from the *PCPS* and assumed that organizations using electronic transactions would incur overhead costs similar to those using electronic medical records and that organizations using manual transactions would incur overhead costs similar to those using paper-based records.

Table 3 illustrates the potential industry-wide savings opportunity from full adoption of automated process for these six transactions. In the table, "savings opportunity" represents the gap between current levels of electronic administrative transaction adoption and full adoption. By our estimates, eligibility and benefit verification and prior authorization yield the largest potential savings among these processes.

These estimates provide a benchmark for measuring progress forward in time. The 2013 Index process involved careful specification of the data submission requirements so that health plans could report identical measures from their varied internal tracking systems.

However, the nationwide savings estimates are subject to a degree of uncertainty in several areas. First, the transaction cost survey reflected costs in very large health plans. Therefore, Milliman applied adjustments for large, medium, and small plans to better reflect the cost experience of smaller plans, which have fewer opportunities for returns to scale from major automation investments.

Table 3. Projected Industry Savings Opportunity

(Millions of Dollars)	Health Plan Savings Opportunity	Provider- Facility Savings Opportunity	Industry Savings Opportunity
Claim Submission	$130	$430	$570
Eligibility and Benefit Verification	$460	$3,530	$4,000
Prior Authorization	$410	$1,470	$1,880
Claim Status Inquiries	$280	$610	$890
Claim Payment	$110	$360	$470
Remittance Advice	$40	$350	$400

Source: CAQH, Index.
Note: Components may not sum to totals due to rounding.

While the transaction cost data from health plans was fairly similar from health plan to health plan, the range of responses from healthcare providers and facilities was quite broad. Since the number of responding providers and facilities was small, we believe that the 2013 transaction cost estimates for the provider-facility side are subject to a higher degree of uncertainty. A key focus of the Index process for 2014 will be to expand the number of provider and facility respondents to enrich and verify the provider transaction cost data and obtain additional insights about trends in both transaction numbers and costs.

Finally, we believe that many of the responding health plans reflect first movers and industry leaders in the shift from manual to electronic administrative processes. Because they are mostly large plans, these companies could benefit from economies of scale in their investments in automation. Therefore, it is possible that our results and estimates lean closer toward industry best practices in some cases, rather than industry averages or median performance.

Specific Findings and Observations

The findings and insights on the six particular transactions studied stem from a combination of the data collected, survey results, qualitative discussions with respondents, and analysis by Milliman and CAQH.

Here are some highlights:

1. The vast majority (91%) of the claims submissions analyzed were submitted electronically; this is the highest level of electronic adoption of any of the measures.
2. Roughly half (56%) of the participating payers are using electronic claim payment, a relatively new electronic transaction option.
3. Electronic claim remittance advice shows the lowest level of adoption at 53 percent. However, the effective adoption rate is likely even lower because more than 10 percent of electronically delivered claim remittance advice documents are also requested and delivered by another method. Eliminating this duplication would yield additional savings.
4. Virtually all of the electronic claim payment transactions in 2012 used the Automated Clearing House Network (ACH), a financial services industry standard, to facilitate electronic funds transfers.
5. Adoption rates for electronic eligibility and benefit verification and claim status transactions are somewhat uncertain due to a low response rate and the preliminary nature of some health plans' tracking capabilities. The 2014 Index is expected to have more complete information as additional health plans track these transactions and tracking metrics stabilize.

Following is a more detailed analysis used to assess progress on key transactions. The electronic transactions examined for this report predominantly used the HIPAA ASC X12 standards, followed by portal transactions and other electronic systems, such as interactive voice response.

The Affordable Care Act (ACA) mandated new operating rules for claim status and eligibility and benefit verification transactions, which became effective January 1, 2013. Since the data for the 2013 Index report are from calendar year 2012, they predate the implementation of the new rules. Therefore, future Index reports will help identify the impact of the changes.

Claim Submission

Overall, 91 percent of claim submission transactions analyzed were conducted electronically in 2012. Each remaining paper-based claim submission costs the healthcare system $2.58; $1.84 to providers and $0.74 to payers. By contrast, electronic claims cost the healthcare system $0.54 each; divided nearly equally at $0.28 for providers and $0.26 for health plans.

Some participating health plans were unable to distinguish between claim submissions for payment and transmissions of encounter information made only for the purpose of reporting care delivery (for example, for Medicare Advantage or Medicaid managed care plans paid on a capitated basis). All claim submissions made in a standard format were included in our counts. The measure does not account for claims that were later adjusted or identified as duplicate claims in the adjudication process.

In aggregate, the source of claims had little effect on the use of electronic transactions. The proportion of electronic to manual claims from providers is nearly equal to that of those coming from facilities. Participating health plans reported nearly 12.5 claim submissions per member, with the vast majority, not surprisingly, coming from providers.

Health plans reporting the highest percentages of electronic claim submission transactions indicated in interviews that these achievements were the result of thoughtful and deliberate organizational efforts to drive electronic adoption.

Health plans have successfully partnered with facilities and large provider organizations to boost the percentage of claims submitted electronically. One health plan, for example, worked proactively with vendors and institutions to remove barriers to submitting claims electronically and, after a year-long outreach effort, mandated the use of electronic claim submission by facilities.

Closing the remaining gaps may require a different approach. Small provider offices account for the majority of remaining manual claims, and they face an entirely different set of barriers to submitting claims electronically. Therefore, health plans may need alternative – and innovative – solutions. For example, one health plan built a free web tool for small provider practices that allows providers to submit claims electronically. The health plan also examined and adjusted some of its exclusions and documentation requirements to facilitate electronic claims submissions by this group.

Claim Submissions, Number By Transaction Type

Manual by Provider	107,519,687
Manual by Facility	11,574,661
Electronic via HIPAA 837M	1,048,442,318
Electronic via HIPAA 837I	130,051,194
Total Submissions	**1,297,587,860**

Percent of all Claim Submissions Conducted Electronically

Aggregate	91%
High	96%
Low	73%

Eligibility and Benefit Verification

Use of electronic eligibility and benefit verification transactions is strong and growing, but many of these electronic transactions are duplicated with telephonic follow-up, according to participant interviews. Consequently, the effectiveness of electronic transactions is undermined by a continued reliance on redundant manual operations.

Complex coverage designs, such as multiple tiers, are one of the primary reasons for the number of telephone calls. Frequently, the complexity of the plan design exceeds the capacity of the HIPAA ASC X12 standard. As a result, information retrieved electronically may be insufficient to confirm benefits. Second, these benefit designs can be a source of confusion for providers and patients, elevating the need for such verifications by telephone. These challenges can erode trust between stakeholders and slow progress toward eliminating manual transactions.

Some participants indicated that tracking the number of eligibility and benefit verification telephone calls is a more meaningful metric than measuring the number of electronic eligibility and benefit verification transactions. The participating health plans reported fielding more than 60 million telephone calls to verify eligibility and benefits in 2012. At a per-call cost of $6.83, including $3.55 to providers and $3.28 to health plans, we estimate that non-automated eligibility and benefit verification calls contributed approximately $4 billion in cost to the healthcare system.

Data on eligibility and benefit verification can be complex and difficult to standardize across plans. Traditional, non-electronic processes for both eligibility and benefit verification and claim status inquiries generally take the form of telephone conversations between providers and health plan representatives.

Multiple questions are often resolved in a single phone call, making records about the primary purpose of calls highly subjective. For instance, representatives may respond to inquiries about multiple patients or multiple diagnosis codes and services for a single patient during a single call. Further, some participating health plans were unable to track eligibility and benefit verification and claim status inquiry transactions as unique events, making it impossible to ensure the data are free of double-counting.

Eligibility and Benefit Verification, Number by Transaction Type

Telephone	60,402,909
Fax	1,157,012
Interactive Voice Response	33,536,481
Portal	349,679,840
HIPAA 270	875,689,400
Total Verifications	**1,320,465,642**

Prior Authorization and Referral Certification

For the 2013 Index, Milliman crafted a preliminary estimate of prior authorization transactions based on Milliman benchmarks for inquiries per member-year and overall estimates of enrollment. Although the exact benchmarks are proprietary for each type of payer, Milliman estimates that fewer than one annual prior authorization event occurs per member per year, with a relatively higher rate for Medicare Advantage enrollees than for commercial and Medicaid members. Milliman estimates that approximately six out of every seven prior authorization events are handled via manual transactions. Milliman studied prior authorization transactions for medical and surgical benefits, and did not include prior authorizations related to retail pharmacy transactions.

Costs of prior authorization and referral certification transactions were estimated by Milliman as part of their surveys of health plans and providers. Average estimated costs per transaction were $0.18 for automated and $3.95 for manual transactions for health plans, and $5.20 for automated and $18.53 for manual transaction for providers.

In total, Milliman estimates that there were nearly 130 million prior authorization and referral certification transactions in 2013, and that almost 110 million of them were handled manually, via phone, fax, or paper-based communication. Even though there may be far fewer prior authorization transactions than other types of business transactions, such as claims submission or eligibility verification, the high estimated transaction costs of prior authorization imply that health plans could save an additional $0.4 billion from automation, and providers could save approximately $1.5 billion.

The Index intends to build on Milliman's preliminary estimates by rolling prior authorization and referral certification into the 2014 Index data submission for health plans.

Claim Status Inquiries

Electronic claim status inquiries represent another significant opportunity for the industry to streamline routine operations and reduce cost.

More than one in 4.5 claims generated an inquiry in 2012. While the vast majority of those were electronic inquiries, the participating health plans nevertheless fielded more than 28 million telephone inquiries regarding claim status. At a cost of $6.09 per transaction, including $2.25 to providers and $3.84 to health plans, we estimate that manual claim status inquiries contributed approximately $0.9 billion in unnecessary administrative costs to the healthcare industry.

Participants also indicated that streamlining this specific transaction is a relatively new focus, and growing awareness is expected to increase use of electronic systems. However, the transition from manual or telephonic transactions to electronic is expected to follow a pattern similar to that of eligibility and benefit verification transactions. That is, the number of electronic transactions may climb as the number of telephonic transactions remains static.

Vendor service-level agreements may mandate automated inquiries until the claim is completed, driving the number of transactions up overall. As electronic systems mature and are able to deliver more complete and consistent information, health plans hope to further encourage use of electronic channels. At least one participating health plan has contemplated a system to facilitate cost-effective escalation of claim status inquiries, which would ask providers to use the HIPAA ASC X12 transaction first and, as necessary, inquire by portal and, finally, by telephone.

Claim Status, Number by Transaction Type

Telephone	28,279,064
Fax	3,351,753
Interactive Voice Recognition (IVR)	19,720,235
Portal	77,061,410
HIPAA 276	161,368,175
Total Inquiries	**289,780,637**

Claim Payment

Forty-four percent (44%) of all claim payments by participating health plans continued to be made by paper check in 2012 at a cost of $0.66 each, representing another opportunity to reduce cost by streamlining payment to providers. Our counts of claim payments do not include payments made by patients, such as through a Health Savings Account (HSA), but do include adjudicated claims resulting in $0 payments, and may include claims with dates of service in the prior year.

Participants believe that the expanded availability of electronic funds transfer (EFT) will foster increased and rapid adoption of electronic claims payment. Health plans and related entities are actively campaigning to enroll providers in EFT, focusing initially on providers responsible for generating the highest number of claims, such as facilities and large provider groups, to most quickly increase the percentage of claims being paid electronically. In addition, health plans are working to reduce the per-transaction cost by settling more claims in each payment.

The newly mandated EFT standard, ACH CCD+, is also making EFT an attractive option for providers. Its 80-character addendum capability allows health plans to convey more information about payments, which can ease the re-association burden in the provider office.

Claim Payment, Number by Transaction Type

Printed Check or Paper-Based Instrument	93,682,425
EFT via ACH Network	113,273,002
Non-Funded Payments (Correspondence / Zero Payment)	7,195,379
Total Payments	**214,150,806**

Percent of all Claim Payment Transactions Conducted Electronically

Aggregate	56%
High	61%
Low	36%

Claim Remittance Advice

Claim remittance advice represents a high-value opportunity to reduce cost by eliminating redundancies and expanding adoption of electronic transactions. Participants indicated they receive a significant number of requests for paper claim remittance advice documentation, in addition to the electronic advice. Approximately 11 percent of the electronic claim remittance advice transactions reported by participants – nearly 17 million documents – were also requested on paper in 2012. At a cost of $0.45 per transaction, these redundant paper claim remittance advice documents represent an estimated $10 million opportunity to reduce administrative costs for health plans alone.

Slightly more than half, or 53 percent, of the claim remittance advice documents processed by participating health plans in 2012 were electronic, and we estimate that approximately $400 million could be saved in the healthcare industry by full conversion to electronic statements.

Participants cited three key factors that they believe will spur the adoption of electronic claim remittance advice. First, the transaction is now linked to electronic claim payment, or EFT, as an integrated transaction in HIPAA standards. Second, ACA-mandated operating rules are expected to boost adoption of both transactions. Third, a number of health plans currently have their own initiatives aimed at specifically increasing the use of electronic claim remittance advice.

Remittance Advice, Number by Transaction Type

Printed or Paper-Based Remittance Advice	54,201,444
Portal Remittance Advice or Other Electronic EOP	16,219,298
Electronic Remittance Advice (HIPAA 835)	62,049,239
Electronic Remittance Advice (HIPAA 835) with Printed or Paper-Based Remittance Advice Sent	16,544,460
Total Remittances	**149,014,440**

Percent of all Remittance Advice Transactions Conducted Electronically

Aggregate	53%
High	74%
Low	14%

QUESTIONS FOR FUTURE STUDY

The 2013 Index analysis suggests that billions of dollars in savings are possible from continued automation of several routine administrative processes: claim submission, eligibility verification, prior authorization, claim status, claim payment, and remittance advice. We estimate that the potential annual savings from further automation of these six transactions alone could total nearly $7 billion for healthcare providers and facilities, and more than $1 billion for health plans.

Our estimates and projections are subject to several limitations. For example, some plans were unable to provide information segmented by major insurance type – private commercial vs. Medicare Advantage vs. Medicaid – because the data was not collected in ways that allowed that classification. Thus, we chose to use relatively simple methods to project nationwide impacts and the industry-wide potential for additional savings. With more granular data, future Index reports may be able to use more precise projections of national-level savings.

Second, we report transaction costs and savings incurred by health plans and providers only, and solely for the transaction itself, not the time and cost associated with preparing information for the transactions. These untracked costs could be extensive for some health plans and providers. On the other hand, the reported savings opportunities represent the gap between current levels of electronic administrative transaction adoption and full adoption. This latter approach overestimates the opportunity to reduce costs in cases where achieving 100 percent adoption may not be realistic.

Another key issue is the possibility of bundled or duplicative transaction counts, notably for eligibility and benefit verification. For example, call center representatives often respond to multiple questions in a single phone-based inquiry (i.e., multiple patients; multiple diagnosis codes; or multiple reasons, such as eligibility, coverage, benefits, appeals, resubmissions, or status of claim within the adjudication cycle). This fundamental characteristic of health plan operations may cause transaction counts to be understated. Thus, many health plans are unable to track eligibility and benefit verification transactions as unique events. On the other hand, we believe there may be some duplicative counting because health plans may have difficulty classifying manual transactions (primarily telephone calls) in a reliable and consistent manner by type of transaction.

Fourth, the health plans responding to our data submission process for transaction counting, and the health plans and providers responding to the Milliman surveys of transaction costs, may not be representative of all health plans and providers. In particular, our analysis would be improved from a broader response from small and medium-sized health plans, and from a larger array of healthcare providers and facilities.

Nevertheless, we believe the large scale of our data collection efforts likely reflects a reasonable approximation of industry-wide results.

Finally, the Index does not include data from Medicare's traditional fee-for-service program and Medicaid programs that are operated directly by the states. Operationally, these programs require many of the same payer/provider inquiries and interactions; therefore, substantial additional savings for the industry could be available through automation that is not reflected in our current estimates. In general, data on Medicare fee-for-service claims are available with a lag; however, Medicaid program data can be much more difficult to obtain. The Index Advisory Council may consider approaches to filling out the Medicare and Medicaid sections to provide a more complete result for the entire U.S. covered population in future reports.

On balance, we have probably underestimated potential industry savings in some areas and overestimated it in others. We believe the 2013 total national savings estimates should be taken as a benchmark for 2012 industry results, and ongoing refinements in data specification and collection will improve the precision of our future estimates.

CALL TO ACTION

It has been almost 20 years since HIPAA established rules for the adoption of electronic transaction standards and the use of electronic administrative transactions over manual processes. While the healthcare industry has made significant progress in the intervening years, the transformation is far from complete.

Based on this analysis, it is estimated that the industry as a whole today could save an additional $8 billion annually by both expanding the use of the six transactions analyzed and concurrently eliminating related and often redundant manual transactions. The ACA will significantly magnify the savings opportunity across the industry. To start, the number of insured individuals is expected to grow substantially over the coming decade under the ACA, simultaneously increasing the number of administrative transactions that are conducted daily and the amount that can be saved by conducting them electronically. In addition, the third set of ACA-mandated operating rules that go into effect January 1, 2016, and address healthcare claims, health plan enrollment/disenrollment, health plan premium payments, referral/certification/prior authorization, and claim attachments, provide new avenues for moving away from manual administrative processes.

To achieve a truly efficient healthcare system, we encourage every health plan, provider, vendor, and business partner to be part of the process:

- **Adopt electronic administrative transactions and reduce manual and phone-based processes.** Healthcare providers, health plans, and their business partners are already realizing the savings potential of electronic administrative transactions. There is more work to do, and the remaining opportunity to reduce costs and inefficiency is substantial. By supporting and encouraging broad adoption of electronic transactions in their organizations, stakeholders can help drive wasteful costs out of the system while adding value for business partners.

- **Benchmark progress.** It is incumbent upon stakeholders to measure the progress of their organization to eliminate administrative waste and reduce costs. The Index report can be used as an industry benchmark to gauge progress against peers, as well as to estimate current and future savings. The Index has created an online calculator that both plans and providers can use to estimate their potential cost savings by transaction (www.caqh.org).

- **Become an Index participating organization.** To ensure that the data on healthcare administrative transactions best represents the industry as a whole, and to most effectively and objectively identify and analyze trends, the Index needs data from as many organizations as possible across the full spectrum of the healthcare delivery system: individual providers, multi-specialty providers groups, facilities, health plans, vendors, and other related business partners. By participating as a data contributor, organizations at every stage of adoption can help improve the overall quality of the analysis, enabling deeper insight into the transition, advancing its ability to demonstrate industry progress and quantify the actual cost savings and efficiency gains achieved. Participation is open to organizations that are able to extract and report data according to *the Index Reporting Standards and Data Submission Guide*. The *2013 Index Reporting Standards and Data Submission Guide* follows this Index report.

At a time when eliminating unnecessary costs from the healthcare system has become a universal imperative, administrative simplification is an integral part of the solution.

The 2014 Index is targeted for release by CAQH in late 2014, based on data collected for all of calendar year 2013 and surveys conducted in the spring and summer of 2014. Organizations interested in participating in the 2014 Index may contact Jeff Lemieux, CAQH Director of Research, at JALemieux@caqh.org.

2013 REPORTING STANDARDS AND DATA SUBMISSION GUIDE

Measure Descriptions

All measures for the 2013 data submission were based on data representing the January 1, 2012 to December 31, 2012 calendar year.

Claim Submission

Measures and reports the percentage of all legitimate claims that are received electronically as a proportion of the total of all legitimate claims received by the health plan.

Legitimate Claim is defined as an itemized statement of rendered services and costs from a healthcare provider or facility received by the health plan for payment for health care. A claim can be submitted via a manual process using paper or electronic system either directly or through intermediary billers and claims clearinghouses.

The total number of Legitimate Claims represents the denominator for the Claim Submission calculation.

Note:

- If there is no direct claim for payment given reimbursement contracts, the transaction is considered the transmission of encounter information for the purpose of reporting health care. Encounters may or may not be included depending on the ability to report separately by the health plan. If encounters cannot be separated from claims, the participant should notify CAQH upon data submission. Encounters may be reported within the appropriate data submission field.
- Claims reported should be only those received for medical expense services for insured/enrollees participating in the health plan. Only ASC X12N/005010X2I2 Health Care Claim 837 I (Institutional) and 837 P (Professional) claims are included at this time.
- Reporting of claims to CAQH should be grouped based on commercial, Medicare, Medicaid, Medigap or other supplementary policies when available to track separately. Where available, claims should be grouped by source of claim submission (provider or facility). Notify CAQH of data included within data submission. Each product will be reported separately and aggregated.
- Adjusted claims and duplicate claims may be received by the health plan system as a legitimate claim and will not be rejected until after claim logic is applied. These claims should be counted in the measure as they are received by the health plan. Processed or Adjudicated Claims would be a step beyond received and should not be used for determining a received claim as it would narrow the denominator of the intended measurement.
- Claims per member months will be tracked as a secondary metric.

Electronic Claim is defined as an electronic data interchange (EDI) of the received claim submission transaction. The HIPAA standard title is ASC X12N/005010X2I2 Health Care Claim 837 I and P. Only HIPAA compliant claims should be included as an electronic claim.

Eligibility and Benefit Verification

Measures and reports the percentage of all eligibility and benefit verifications received electronically to inquire about the eligibility, coverage, or benefits associated with a benefit plan or product as a proportion of all eligibility and benefit verifications received by the health plan. A normalized proportion of verifications per 1,000 claims is calculated by subcategory to show relative volume.

Eligibility and Benefit Verification is defined as when a health plan receives a request to obtain any of the following information about a benefit plan for an enrollee or member:

1. Eligibility to receive health care under the health plan.
2. Coverage of health care under the health plan.
3. Benefits associated with the benefit plan.

The total number of Eligibility and Benefit Verifications represents the denominator for the Eligibility and Benefit Verifications calculation.

Note:

- Eligibility and benefit verifications are done in a variety of ways including the following:
    - Accessing enrollee or member information via a health plan's secure Web site - Portal/Direct Data Entry (DDE). Tracked individually for reporting.
    - Telephone, Interactive Voice Response (IVR) and fax. Tracked individually for reporting.
    - The ASC X12 270 Health Care Eligibility Benefit Inquiry.
- These modes of verifications should be reported separately to measure trend of electronic transaction adoption and the movement away from manual transactions and communications.
- As it may be difficult to differentiate and categorize between inquiries for eligibility, coverage and benefits, grouping of the inquiries is acceptable for reporting calculations.
- Total number of legitimate claims from the Claim Submission measure is used to provide a normalized calculation of the above sub-categories.

Electronic Eligibility and Benefit Verification is defined as an electronic data interchange (EDI) transaction when the health plan IT system receives a request to obtain information about a benefit plan for an enrollee electronically through direct data entry, via portal, or through batch file submission and the system responds with the requested eligibility and benefit information using the same modality as the inquiry. The HIPAA standard title is ASC X12 270 Health Care Eligibility Benefit Inquiry.

Subcategories will be reported between HIPAA-compliant electronic transactions and transactions that are not HIPAA-compliant transactions. Transactions that are not HIPAA-compliant that are electronic or automatic will be considered automated and reported separately.

Note:

- ASC X12 270 is the standard for electronic eligibility and benefit verification for both providers and health plans and is the primary metric for the measure.

- From the health plan perspective, IVR, portal, and DDE may be considered electronic and reduces the manual interactions of phone calls and faxes for health plans. Given there is value to track both types of electronic transactions, each subcategory will be reported and tracked as secondary metrics at this time. The automated category is used to report the non-HIPAA compliant electronic transactions.

Claim Status Inquiries

Measures and reports the percentage of all inquiries received electronically to inquire about the status of a healthcare claim as a proportion of all claim status inquiries received by the health plan. A normalized proportion of inquiries per 1,000 claims is calculated by subcategory to show relative volume.

Claim Status Inquiry is defined as when a health plan receives a request on the status of a claim.

Note:

- Claim status inquiries are done in a variety of ways including the following:
    - Accessing claim information via a health plan's secure Web site - Portal/Direct Data Entry (DDE). Tracked individually for reporting.
    - Telephone, Interactive Voice Response (IVR) and fax. Tracked individually for reporting.
    - The ASC X12 276 Health Care Claim Status Request.
    - These modes of requests should be reported separately to measure trend of electronic transaction adoption and the movement away from manual transactions and communications.
- As it may be difficult to differentiate and categorize between inquiries for appeals, resubmissions and the status of the claim within the adjudication cycle, inquiries on claim status should be counted when there is the ability to track separately.
- Total number of legitimate claims from Claim Submission is used to provide a normalized calculation of the above sub-categories.

Electronic Claim Status Inquiry is defined as an electronic data interchange (EDI) transaction when the health plan IT system receives a request on claim status electronically through direct data entry via portal or through real time and batch file submission and system responds with requested status update using the same modality as the inquiry. The HIPAA standard title is the ASC X12N/005010X212 276 Health Care Claim Status Request.

Subcategories will be reported between HIPAA compliant electronic transactions and non-HIPAA compliant transactions. Non-HIPAA compliant transactions that are electronic or automatic will be considered automated and reported separately.

Note:

- ASC X12 276 is the standard for electronic claim status inquiry for both providers and health plans and is the primary metric for the measure.

- From the health plan perspective, IVR, portal, and DDE may be considered electronic and reduces the manual interactions of phone calls and faxes for health plans. Given there is value to track both types of electronic transactions, each subcategory will be reported and tracked as secondary metrics at this time. The automated category is used to report the non-HIPAA compliant electronic transactions.

Claim Payment

Measures and reports the percentage of transactions used by the health plan to make a payment to the healthcare provider as a proportion of all healthcare claim payments by the health plan.

Claim Payment is defined as any transfer of funds or payment to the financial institution of a healthcare provider for a health care claim.

Note:

- HSA and member payments should not be included.
- Claim payment may be done in a variety of ways including the following:
    - Cash, check or similar paper instrument.
    - Payment via a credit card network, Fedwire network or other non-Automated Clearing House (ACH) network governed by NACHA (The Electronic Payments Association).
    - Electronic Funds Transfer (EFT) via the ACH Network.
- Claim payments, regardless of the delivery function can also be a transaction type of credit, debit or an unfunded credit (zero pay).
- Claim Payment is reported and tracked by number of payments made in the measurement year along with the number of claims paid within the cohort of payments. Reporting at the payment level alone understates the volume of claims paid given multiple claims may be included in a single payment. Dollar value of claims or payments are not tracked.
- Claims submitted from the prior year may be paid within the payments being reported (e.g., claim submitted on December 15 is paid or payment is sent on January 15). Only ASC X12N/005010X2I2 Health Care Claim 837 I (Institutional) and 837 P (Professional) claims are included at this time.
- Claims paid per payment is calculated to provide insight into the number of claims bundled per payment mechanism as a secondary measure.

Electronic Claim Payment or Electronic Funds Transfer (EFT) is defined as any electronic data interchange (EDI) transfer of funds (EFT), other than a transaction originated by cash, check, or similar paper instrument that is initiated through an electronic terminal, telephone, computer, or magnetic tape for the purpose of ordering, instructing or authorizing a financial institution to debit or credit an account. The term includes Automated Clearing House (ACH) transfers, Fedwire transfers over the Federal Reserve Wire Network, transfers made at automatic teller machines (ATMs), and point-of-sale terminals.

The total number of claims paid through electronic claim payments or electronic funds transfer represents the numerator for the Claim Payment calculation.

Note:

- Claims adjudicated resulting in $0 payment (zero pay) are included.
- Each electronic payment instrument will be tracked and reported with the Total Electronic Claim Payment being the sum of these payment instruments.

Claim Remittance Advice

Measures and reports the percentage of transactions used by the health plan to send a remittance advice directly to a healthcare provider as a proportion of all healthcare remittance advice messages by the health plan.

A *Remittance Advice (RA)* is defined as a document or a transmission of a message supplied by the health plan or payer that provides notice of and explanation reasons for payment, adjustment, denial and/or uncovered charges of a medical claim back to the provider or facility. The RA may accompany payment and is sometimes referred to as an explanation of payment (EOP).

Note:

- Claim Remittance Advice is reported and tracked by remittances made in the measurement year along with the number of claims represented within the cohort of remittances.
- A remittance advice may reference claims submitted in the prior year (e.g., claim submitted on December 15 is remittance is sent on January 15).
- Claims represented per remittance is calculated to provide insight into the number of RAs bundled per remittance as a secondary measure.
- A Remittance Advice or other Electronic EOP may be viewed via a health plan's secure Website. These modes should be reported separately to measure the trend of electronic transaction adoption and the movement away from manual transactions and communications.
    - From the health plan perspective this may be considered electronic leading to a reduction in paper based RAs.
    - Given there is value to track both types of electronic transactions, this subcategory will be reported and tracked as secondary metrics at this time. The automated category is used to report the non-HIPAA compliant electronic transactions.

Electronic Remittance Advice (ERA) is defined as an explanation of the health care payment or an explanation of why there is no payment for the claim that is transmitted electronically through the health care payer payment or claims processing system and is received by the provider or provider's agent (e.g., clearinghouse, billing service). The ERA includes detailed identifiable health information. The ERA may be submitted electronically through a secure message or batch file.

Note:

- The HIPAA standard title is ASC X12 005010X221A1 835 Health Care Claim Advice.

- In some relationships between the health plan and the provider, an ERA may be accompanied with a paper RA. ERA with paper RA will be tracked and reported separately as a secondary measure when available for reporting from the health plan. This is considered to be a manual transaction given resources and costs associated with printing and mailing an RA. These transactions should separated from paper RA only or ERA only counts to avoid duplication of total counts.

GUIDELINES FOR DATA COLLECTION AND REPORTING

Data Collection Model

Initial work has focused on defining an action plan and priorities for developing a model for data collection and reporting. Below is a summary of the model:

1. Participants enroll with CAQH to participate and receive data submission instruction and are provided CAQH data submission IDs that will only be seen by CAQH. Individual entity results are not publicly reported at this time.
    a. Demographic information will be collected where available to segment and weight data.
    b. Unique IDs are created to mitigate duplicate data contribution depending on definition of submitting entity.
2. Participants submit data annually with ability to retrieve, update or correct during the submission period. Participants may decide to withdraw a data submission, but aggregate statistics will not be recalculated after annual report is released.
3. CAQH aggregates, de-duplicates data and extrapolates final numbers based on estimation methodology developed and approved by Data Standards Workgroup after final number of data contribution participants have been determined.
4. Methodology Audit Reviewers (Milliman) validate final numbers and releases for posting key aggregate Index statistics to the Internet and the creation of industry report by CAQH.

Data Collection Process

A set of standardized definitions are provided in this guide to ensure Participants are extracting and reporting comparable numbers. The Participant should follow the instructions provided in this guide as a set of guidelines and consult CAQH where there may be barriers or deviations. Any deviation from the written guidelines will be reviewed by the Data Standards Workgroup to determine impact to Index calculations and if deviation will be permitted for data submission. Material, but accepted, deviations will be documented and listed in any published reports.

1. Participant identified by CAQH, Advisory Panel or existing Participant. New Participants should contact CAQH if interested in participating.

2. CAQH works with Participant to define reporting entity and assign IDs. Advisory Council will be engaged if there is a need to address defining the unique entity or data submission. Upon assignment of CAQH ID, the Participant will be enrolled to participate in data contribution.
3. Participant will review *Data Submission Guide* and request conference call with CAQH to address any questions or data reporting challenges. Any material issues will be reviewed by Data Standards Workgroup to include or exclude in data reporting.
4. Participant submits data file by reporting due date to CAQH. See Appendix C for the Index Data Submission Form and Data Collection Template.
5. Participant attests to the submitting complete and faithful data to CAQH in the designated format and in accordance with data submission standards written in this *Reporting Standards and Data Submission Guide*. See Appendix F for the Data Submission Acknowledgement.
6. Participant will receive a final report with individual results upon the release of the U.S. Healthcare Efficiency Index™ report. Individual participant data remains in confidence at CAQH and individual results will not be published.

Defining the Data Contribution Entity (Participant)

CAQH will conduct an initial interview with the contributing entity (participant) to gain an understanding of the data that will be submitted along with the general defining characteristics of the participant. Data submission characteristics are used to weigh and segment the submitted data.

A key set of characteristics are used to determine the Reportable Entity and Reportable Unit. Recognizing the possible limitations within the participant entity to extract and report segmented data, CAQH may allow aggregated data submission across multiple business lines, health plans and product types that can be used for aggregate industry statistics. The preferred method is to collect data at the most granular level as is feasible and possible at the participant entity that is of the lowest burden to allow for benchmarking and comparative analysis based on common key characteristics.

- Reportable Entity (Organization ID) characteristics will be required to determine if the entity is a unique organization contributing data.
    - Legal Entity or Organization Name
    - Name of Person Submitting Data with Title and Contact Information
    - Entity Type
    - Ownership (Public, Private, Profit Status)
- Reportable Unit (Submission ID) will be determined based on the Reportable Entity requirements and if there is a need for multiple data submissions per entity.
    - Line of Business (commercial, Medicare, Medicaid) or Plan Type if applicable
    - Individual Product Type if applicable
    - Geographical Business Unit or area represented by Reportable Unit with:

        - Number of Members (If using member months, divide the total member months by 12 months to report the membership represented for the annual data submission time period)
        - Number of Contracted Providers (broken out by physicians and non-physicians)
        - Number of Contracted Hospitals and Facilities
- Additional characteristics may be recorded to help define the Reportable Entity and Unit. Comments and Assumptions will be tracked for consideration in any statistical analysis or aggregate reporting of statistics.

Additional data characteristics will be collected where applicable. Notify CAQH if the reported data is not representative of the standard reporting calendar year. Where multiple geographical segmentation is available, membership size and percentage of total membership should be reported. The systems and platforms used should also be reported along with any changes that may have impact to the data reported and the impact to trending over time.

APPENDIX A

2014 Index Advisory Council

Member Organization	*2014 Advisory Council Member*
Aetna	Jay Eisenstock
AHIP	Tom Meyers
Streamline Health, Inc. (Cooperative Exchange)	Richard Nelli
CAQH	Robin Thomashauer
CAQH	Jeff Lemieux
CMS Office of E-Health Standards and Services	Matthew Albright (Liaison)
CIGNA	Paul Keyes
InstaMed	Bill Marvin
MGMA	Rob Tennant
Milliman, Inc.	Andrew Naugle
Milliman, Inc.	Susan Philip
Nachimson Advisors, LLC	Stanley Nachimson
Premier Inc.	Erik Swanson
Scheuren-Ruffner Associates	Fritz Scheuren
Scheuren-Ruffner Associates	Patrick Baier
THINK-Health and Health Populi	Jane Sarasohn-Kahn
UnitedHealthcare	Chris Kent
WellPoint	Bryan Bearden

APPENDIX B

Glossary of Terms Used in This Report and Prior Index Documents

Claim Payment. Any transfer of funds or payment to the financial institution of a health care provider for a health care claim.

Claim Remittance Advice. A document or a transmission of a message supplied by the health plan or payer that provides notice of and explanation of reasons for payment, adjustment, denial and/or uncovered charges of a medical claim back to the provider or facility. The Remittance Advice may accompany payment and is sometimes referred to as an explanation of payment (EOP).

Claim Status Inquiry. Instances when a health plan receives a request on the status of a claim. The total number of claim status inquiries represents the denominator for the Claim Status calculation.

Cost Savings. The difference between the cost of a purely electronic (HIPAA) transaction and its manual alternative.

Electronic Claim. An electronic data interchange (EDI) of the received Claim Submission transaction.

Electronic Claim Payment. See Electronic Funds Transfer (EFT)

Electronic Claim Status Inquiry. An electronic data interchange (EDI) transaction when the health plan IT system receives a request on claim status electronically through direct data entry via portal or through real time and batch file submission and system responds with requested status update using the same modality as the inquiry. The HIPAA standard title is the ASC X12N/005010X212 276 Health Care Claim Status Request.

Electronic Eligibility and Benefit Verification. An electronic data interchange (EDI) transaction when the health plan IT system receives a request to obtain information about a benefit plan for an enrollee electronically through direct data entry, via portal, or through batch file submission and the system responds with the requested eligibility and benefit information using the same modality as the inquiry. The HIPAA standard title is ASC X12 270 Health Care Eligibility Benefit Inquiry.

Electronic Funds Transfer (EFT) or Electronic Claim Payment. Any electronic data interchange (EDI) transfer of funds (EFT), other than a transaction originated by cash, check, or similar paper instrument that is initiated through an electronic terminal, telephone, computer, or magnetic tape for the purpose of ordering, instructing or authorizing a financial institution to debit or credit an account. The term includes Automated Clearing House (ACH) transfers, Fedwire transfers over the Federal Reserve Wire Network, transfers made at automatic teller machines (ATMs), and point-of-sale terminals.

Electronic Remittance Advice (ERA). An explanation of the health care payment or an explanation of why there is no payment for the claim that is transmitted electronically through the health care payer payment or claims processing system and is received by the provider or provider's agent (e.g., clearinghouse, billing service) The ERA includes detailed identifiable health information. The ERA may be submitted electronically through a secure message or batch file.

Eligibility and Benefit Verification. Instances when a health plan receives a request to obtain any of the following information about a benefit plan for an enrollee or member: 1) Eligibility to receive health care under the health plan; 2) Coverage of health care under the health plan; or 3) Benefits associated with the benefit plan.

Industry Cost. The sum of health plan and provider costs.

Legitimate Claim. An itemized statement of rendered services and costs from a health care provider or facility received by the health plan for payment for health care. A claim can be submitted via a manual process using paper or electronic system, either directly or through intermediary billers and claims clearinghouses.

Measurement Year. The January 1 to December 31, 2012.

Method. Refers to the general modality used to conduct transactions, i.e. manual or electronic.

Modality. Refers to the transaction type by detailed category, i.e. telephone, fax, web portal, etc.

Percent Electronic. Represents the current level of adoption for a type of electronic transaction as a percent of all transactions of that type by all methods.

Realized Savings. The total of annual administrative costs that have been eliminated as a result of electronic administrative transaction adoption.

Remittance Advice (RA). A document or a transmission of a message supplied by the health plan or payer that provides notice of and explanation reasons for payment, adjustment, denial and/or uncovered charges of a medical claim back to the provider or facility. The RA may accompany payment and is sometimes referred to as an explanation of payment (EOP).

Savings Opportunity. The difference in the total cost of a transaction at the reported level of electronic use and full adoption.

APPENDIX C

Index Data Submission Information Forms and Data Collection Tool Templates

U.S. Healthcare Efficiency Index Data Submission Information

Organization Name:	
CAQH Assigned Org ID:	
CAQH Assigned Sub ID:	
Point of Contact Name:	
Point of Contact Email:	

Entity Type:	
Ownership - Public/Private/Profit:	
Line of Business:	
Product:	
Geographical Business Unit:	
Members Represented:	
Number of Network Providers (non-physician):	
Number of Contracted Network Physicians (M.D. and D.O.):	
Number of Contracted Network Hospital and Facilities:	
General Comments and Assumptions of Data Submission and Reporting Entity:	

Transaction Data Characteristics

Time Period Representing Data Submitted:			
Geographic Subset Areas Included:	Unit	Membership Size	
Area 1			
Area 2			
Area 3			
Area 4			
Area 5			
Area 6			
Area 7			
Area 8			
Area 9			
Area 10			
Claims, Eligibility and Payment Systems:			
System 1:			
System 2:			
System 3:			
System 4:			
System 5:			
Changes to Systems that may have impact:			

Data Collection Tool

US HEALTHCARE EFFICIENCY INDEX

simplifying healthcare administration CAQH

2013 Data Collection Tool

Organization ID:

Submission ID:

Claim Submission	
Manual - Provider	
Manual - Facility	
Electronic (HIPAA 837P)	
Electronic (HIPAA 837I)	
Total Claims	-

Eligbility and Benefit Verification	
Inquiries (Telephonic)	
Inquiries (Fax)	
Inquiries (IVR)	
Inquiries (Portal)	
Inquiries (HIPAA 270)	
Total Inquiries	-

Claim Status	
Inquiries (Telephonic)	
Inquiries (Fax)	
Inquiries (IVR)	
Inquiries (Portal)	
Inquiries (HIPAA 276)	
Total Inquiries	-

Form Completed By: _____ -

Email: _____ -

Claim Payment	
Count of Payments Made - Printed Check or Paper Based	
Count of Claims Represented by Payment Made - Printed Check or	
Count of Non-Funded Payments (Correspondence/Zero Pay)	
Count of Claims Represented by Payment Made - Non-Funded Payment	
Count of Payments Made - Bank Card Network	
Count of Claims Represented by Payments Made - Bank Card Network	
Count of Payments Made - Fedwire	
Count of Claims Represented by Payments Made - Fedwire Network	
Count of Payments Made - EFT via ACH Network	
Count of Claims Represented by Payments Made - EFT via ACH Network	
Total Payments Made	-
Total Claims Represented by Total Payments	-

Claim Remittance Advice	
Count of Printed or Paper Based Remittance Advice	
Count of Claims Represented by Printed or Paper RA	
Count of Portal Remittance Advice or Other Electronic EOB	
Count of Claims Represented Portal Remittance Advice or Other Electronic EOB	
Count of Electronic Remittance Advice (HIPAA 835)	
Count of Claims Represented by ERA (HIPAA 835)	
Count of ERA (HIPAA 835) with Printed or Paper Based RA Sent	
Count of Claims Represented by ERA with Paper RA	
Total Remittance Advices Sent	-
Total of Claims Represented by All Remittance Advices	-

Payer Administrative Cost Workbook

This workbook estimates the administrative costs incurred by payers when conducting six primary administrative transactions using different communication modalities. This worksheet describes the data inputs, calculations, and assumptions used in developing these estimates.	
Transaction Definitions	
270/271 - Eligibility Verification	Sending and receiving information about member eligibility and benefits.
278 - Referral Certification/ Pre-authorization	Sending and receiving requests for referral certification and prior authorization for services.
837 - Claim Submission	Receiving claims from providers.
276/277 - Claim Status Inquiry	Sending information about a claim's status.
835 - Remittance Advice (RA)	Sending remittance information to providers.
820 - Payment	Receiving premium payments.
Transaction Modalities	
Staffed Telephone Response	Completing a transaction by sending and receiving information via staffed telephone.
Fax	Completing a transaction by sending and receiving information via fax.
Automated Telephone Response	Completing a transaction by sending and receiving information using an interactive voice response (IVR) system).
Electronic Response	Completing a transaction by sending and receiving information using electronic transactions between provider and payer information systems
Index of Worksheets	
Introduction	Provides an overview of this workbook and a description of the worksheets, inputs, and calculations.
Payer Cost Estimates	Contains data inputs and calculations used to generate the estimated cost of each transaction.
Factors	Contains input factors used to adust the data submitted by payer participants to represent market estimates.
Explanation of Payer Cost Estimates Worksheet	
Column A	Transaction identifier
Column B	Transaction type
Column C	Transaction modality
Column D	Milliman estimate of payer administrative cost per transaction and modality
Columns E-H	Actual payer administrative costs submitted by study participants. Yellow cells represent data elements inferred or calculated based on other inputs.
Column I	Blank
Column J	"Large" payer input proxy. These values represent the average of the four payers that submitted data for this study.
Column K	"Medium" payer input proxy. Larger payer input proxy after application of Medium Payer plan size adjustment factors.
Column L	"Small" payer input proxy. Large payer input proxy after application of Small Payer plan size adjustment factors.
Column M	Blank
Column N	Blended average values calculated using a weighted average based on the distribution of payer sizes in the health insurance marketplace.
Explanation of Factors Worksheet	
Payer Size Adjustment Factors	Transaction-specific payer size adjustment factors used to adjust the "large" payer inputs to reflect the costs of "medium" and "small" payers. The source of these adjustment factors is the Milliman Payer Operations Benchmarks - Payer Size Adjustment Factor Table. These factors represent the administrative costs for medium and small payers relative to large plan administrative costs.
Distribution of Health Plans by Enrollment	Distribution of payers within the U.S. health plan market by enrollment. The source of this data is the National Association of Insurance Commissioners Annual Statements for Health Plans (2012).

Provider Administrative Cost Workbook

This workbook estimates the administrative costs incurred by providers when conducting five primary administrative transactions between payers and healthcare providers using different communication modalities. This worksheet describes the data inputs, calculations, and assumptions used in developing these estimates.	
Transaction Definitions	
270/271 - Eligibility Verification	Sending and receiving information about member eligibility and benefits.
278 - Referral Certification/ Pre-authorization	Sending and receiving requests for referral certification and prior authorization for services.
837 - Claim Submission	Submitting claims to payers
276/277 - Claim Status Inquiry	Sending and receiving information about the status of a claim.
835 - Remittance Advice (RA)	Receiving information about a payment from a payer
Transaction Modalities	
Telephone Response	Completing a transaction by sending and receiving information via a telephone call.
Manual Online	Completing a transaction by manually accessing a payer's portal.
Fax	Sending and receiving a transaction via fax.
Manual - Paper	Sending or receiving information in a harcopy format (e.g., paper)
Electronic Transaction	Completing a transaction by sending and receiving information using electronic transactions between provider and payer information systems
Index of Worksheets	
Introduction	Provides an overview of this workbook and a description of the worksheets, inputs, and calculations.
Payer Cost Estimates	Contains data inputs and calculations used to generate the estimated cost of each transaction.
Provider Survey Data	Contains data submitted by providers participating in the survey.
MGMA Salary Data	Contains salary data used to estimate the cost of staff that support administrative transactions.
MGMA Load Factors	Contains provider administrative cost data used to estimate fully-loaded administrative costs based on salary data.

APPENDIX D

Guiding Principles to Measurement and Reporting

CAQH and the Index Advisory Council believe that when collecting and reporting industry data it is imperative that the results are collected and reported consistently and accurately from one entity to another and from year to year. While there will always be some inherent differences between business operations and there will be barriers and challenges to defining measurement standards that can be applied across the large and diverse healthcare industry, all steps should be taken to set guiding principles, standardized definitions and a foundation to measurement and reporting.

There are many characteristics, attributes and methodologies that are important to defining useful, actionable and reliable measurement and reporting.

Measures should be relevant, meaningful and address processes and outcomes that are applicable and actionable for improvement (e.g., Improve Results, Reduce Cost, Increase Efficiency).

- Meaningful and Important
    - Significant to those being measured and the findings are useful for action.
    - The item of measurement is prevalent enough to warrant measurement and/or the financial implications are large enough to be considered for measurement.

- Controllable and Actionable
    - Impact can be made acting on the results of the measurement.
    - The item of measurement is controllable and action can be taken to improve that which is being measured.

- Strategically Important or Cost Effective
    - The measurement drives competition and recognition in the marketplace.
    - Promotes efficient uses of resources, or reduce waste/low cost-effective activities.

- Variation and Potential for Improvement
    - Wide variation shows an opportunity for improvement, cost reduction and control.
    - Benchmarking against current state and working towards better performance drives improvement and efficiency.

Standardized methods, data availability and clear definitions are required for consistent, valid and accurate measurements for comparison and action. Measurement should not create an unnecessary burden for data collection and reporting, and should use a reliable methodology that is feasible to implement.

- Evidence Based
    - There is strong evidence supporting the need for measurement.
    - There are guidelines or standards documenting the benefits and need for measurement.

- Reproducible, Valid and Accurate
    - Measures should produce the same results when applied to the same population and setting using the same method.
    - Measures are logical and precisely evaluate what is being studied or measured.

- Data Availability and Comparability
    - Data is accessible and available.
    - Stratification to account for differences among variables and reporting entities (e.g., entity type, geography, size, level of sophistication).
    - If there is potential for inconsistent measurement or manipulation that is undetectable, clear instructions and documentation must be provided to address limitations.

- Precise Specifications for data extraction, analysis methods and reporting
    - The measurement is clearly defined and reproducible by an independent third party.
    - Clear definitions and standardized reporting methods to drive repeatable and consistent measurement are necessary to achieve adoption and use of results as industry benchmarks.

APPENDIX E

HIPAA and ACA Definitions and Standards

Health Plan – an Individual or group health plan that provides, pays the cost of, medical care. This definition is based on the role of health plans conducting administrative transactions for the purposes of implementing the provisions of administrative simplification. (Federal Register/Vol. 63, No. 88)

HIPAA-Related Standards for Index Transactions Relevant to CAQH CORE Operating Rules

Transaction	Standard
Health Care Eligibility Benefit Inquiry	ASC X12 270
Health Care Eligibility Benefit Information Response	ASC X12 271
Health Care Claim Status Request	ASC X12 276
Health Care Claim Status Notification	ASC X12 277
Health Care Services Review Inquiry/Response	ASC X12 278
Health Care Claim Payment/Advice	ASC X12 835
Health Care Claim	ASC X12 837

APPENDIX F

2013 Data Submission Acknowledgment

US Healthcare Efficiency Index® Data Submission Acknowledgment

This Data Submission Acknowledgement (the "Acknowledgement") governs the contribution of healthcare data by the organization identified below ("Submitter") to the Council for Affordable Quality Healthcare ("CAQH") in connection with the US Healthcare Efficiency Index® ("Index") program and website located at www.caqh.org.

Submitter acknowledges that the value of the Index is dependent on full and accurate data from the contributing organizations. Accordingly Submitter agrees to submit complete and faithful data to the Index in the designated format and in accordance with data submission standards made available to respondents. Submitter represents that any data submitted is accurate and has not been falsified.

Supplier hereby grants to CAQH, the operator of the Index, a non-exclusive, irrevocable, royalty-free, worldwide license to manipulate the data submitted by Submitter, to incorporate such data into the Index, and to present such data as aggregated into the Index for public use on the Index website. Supplier represents that it has all rights necessary to grant such license to CAQH, and will defend and hold harmless CAQH against any claims to the contrary.

The Index aggregates data to report on industry trends. Accordingly, CAQH agrees that it will keep the disaggregated data submitted by Submitter confidential and will not disclose it to third parties other than (i) to subcontractors for the purpose of aggregating the data into the Index; and (ii) if and as required by applicable law. CAQH owns all data as modified and/or aggregated into the Index, and any use of the Index data is governed by the terms available on the Index website or under a separate license agreement.

NEITHER PARTY, ITS EMPLOYEES, OFFICERS, DIRECTORS, MEMBERS, AND/OR REPRESENTATIVES WILL BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY, CONSEQUENTIAL LOSSES OR OTHER DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS ACKNOWLEDGEMENT.

This Acknowledgement is governed by the laws of the State of New York.

Acknowledged and Agreed:

Organization: _____

By: _____

Name: _____

Title: _____

Date:_____