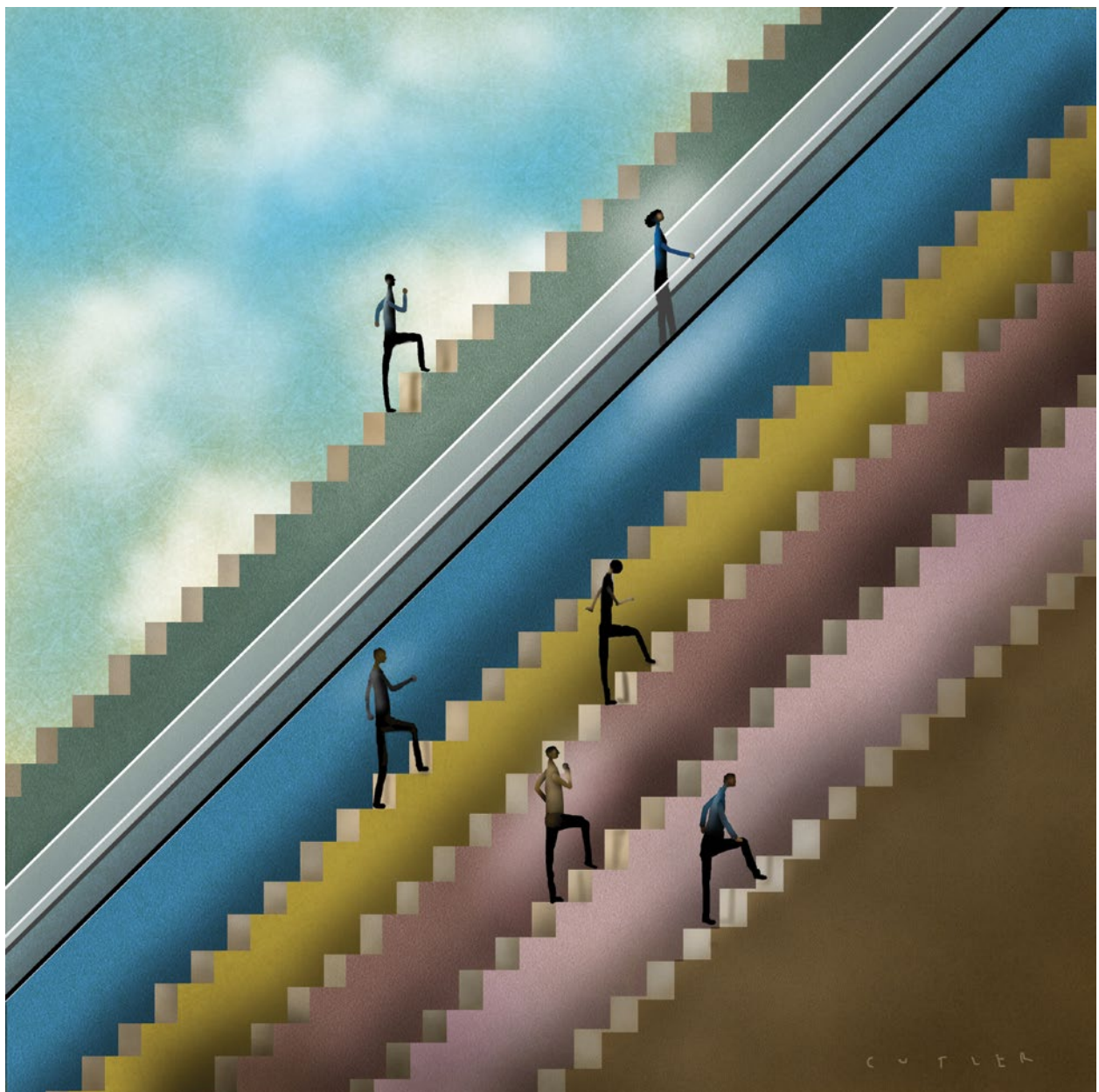# CAQH CORE

All Together Now: Applying the Lessons of Fee-for-Service to Streamline Adoption of Value-Based Payments

CAQH CORE®

All Together Now: Applying the Lessons of Fee-for-Service to Streamline Adoption of Value-Based Payments

CONTENTS

Introduction

Value-based payment now drives a sizable—and growing—proportion of the U.S. healthcare system.[1,2,3,4] Because value focuses both on the quality of care and on its cost, many believe value-based payment has the power to improve individual care and population health while changing the trajectory of national health expenditures.[5]

Value-based payment innovation and experimentation are ongoing, and numerous challenges may slow or prevent its ultimate progress.[6,7,8] As this report demonstrates, without an efficient, uniform operational system, it will be difficult for stakeholders to achieve the fluid, reliable and trusted interactions and exchanges of data needed for long-term value-based payment success.

Many features of value-based payment do not align with the current fee-for-service operational system. Indeed, proprietary systems and processes for implementing value-based payment have already begun to introduce operational variations. Without collaboration to minimize variations, the current environment is ripe for repeating a scenario that cost stakeholders billions of dollars and slowed and complicated adoption of fee-for-service transactions.

By collaborating now, before proprietary systems and processes become entrenched in value-based payment operations, by reaching out to potential collaborators across the industry and by applying lessons learned through its success in the fee-for-service space, CAQH CORE® hopes to energize an effort to ease value-based payment operational inefficiencies.

About This Effort

This report is a milestone in an ongoing effort launched in 2015 by the CAQH CORE Board of Directors. In recognition of the importance of value-based payment, the Board voted to expand the scope of CAQH CORE to focus on helping collective exchange needs for value-based payment, in addition to its original vision of driving unnecessary cost from fee-for-service data exchange.

Since that time, CAQH CORE conducted an 18-month study to examine value-based payment operational processes and to identify opportunity areas that, if improved, would streamline implementation of value-based payment. For its study, CAQH CORE conducted literature reviews, performed an environmental scan, attended conferences, interviewed representatives of more than 20 organizations experienced in value-based payment and surveyed CAQH CORE participating organizations. For more on methodology, please see Appendix B: Research Methodology.

This report, a product of that study, identifies five opportunity areas and makes nine recommendations. For each of the opportunity areas, the report describes the unique challenges associated with value-based payment and makes at least one recommendation. Following each of the recommendations is a rationale supporting the recommendation. At the conclusion of each rationale is a table proposing a strategy and a list of "candidate organizations."

The lists of "candidate organizations" appearing in tables throughout this report reflect the need for action by a range of industry collaborators to successfully propel value-based payment operations forward. CAQH CORE may take the lead in addressing some of the recommendations in this report using its established multi-stakeholder, collaborative model. In other cases, the report identifies industry organizations that may be better positioned to take the lead. For this effort to be a success, CAQH CORE hopes to draw on the support of many participants to fully address recommendations.

In the coming months, CAQH CORE will establish an Advisory Group to prioritize report recommendations and strategies. It will identify those strategies that CAQH CORE can lead, those to which it can contribute and those that require further market monitoring. The Advisory Group will ultimately oversee numerous subgroups composed of individuals with expertise in the specific strategies being pursued by individual groups.

As part of this effort, CAQH CORE is also hosting a webinar education series to educate industry participants about value-based payment.

> **Note:** *For this report, the term "value-based payment" is used, recognizing that other terms, such as value-based care and value-base reimbursement, may also be appropriate. Value-based payment encompasses a range of payment and care delivery models that enable the sharing of financial risk among health plans and providers as quality and experience of care are improved. These include pay-for-performance, bundled payments, shared savings, shared risk and global capitation.*

Why CAQH CORE?

CAQH CORE is a proven agent of change. For more than a decade, healthcare stakeholders have collaborated through the nonprofit organization to bring consistency to the fee-for-service healthcare system. Its collaborative, voluntary model has led the way for healthcare stakeholders to dramatically reduce costly administrative burdens by developing and encouraging use of common rules of the road supporting electronic business transactions.

Many of the fee-for-service process variations addressed by CAQH CORE sprang from the lack of an industry platform for collaboration as stakeholders implemented HIPAA electronic transaction standards. While the HIPAA standards were intended to make it easy for providers and health plans to conduct administrative transactions electronically, they lacked rules for smooth implementation. Without collaboration and business rules for operations, the variation in use of the standards made adoption of electronic systems challenging for all stakeholders.

Beginning in 2005, a diverse group of healthcare stakeholder organizations, including healthcare providers, health plans, vendors and clearinghouses began to collaboratively develop, voluntarily adopt and certify use of CAQH CORE Operating Rules. Because of this work, an increasing number of HIPAA-standardized electronic transactions between health plans and healthcare providers became more uniform. Use of phone, fax and mail to conduct administrative transactions declined. CAQH documents these trends annually through its CAQH Index®.

In 2012, the Secretary of Health and Human Services (HHS) designated CAQH CORE the authoring entity for mandatory operating rules codified as part of the Affordable Care Act (ACA). To date, more than 76 percent of commercially insured and 44 percent of publicly insured individuals are covered by health plans that have certified their use of CAQH CORE Operating Rules. More than 130 multi-stakeholder participating organizations collaborate to develop and maintain the rules. CAQH CORE Operating Rules have made significant improvements in fee-for-service operations and automation, reducing cost and improving care delivery and administrative coordination.

CAQH CORE has expertise in developing industry solutions for the administrative and financial areas where providers and health plans must work together. Its collaborative, voluntary multi-stakeholder model gives the organization unparalleled access to form partnerships with leading organizations and to draw on the insight of thought leaders throughout the industry.

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Streamlining Value-Based Payment: Current State & Opportunity Space

The success of value-based payment is fundamentally dependent upon smooth and reliable business interactions between all stakeholders, and especially between healthcare providers and health plans. The scope and scale of direct collaboration required for value-based payment stands in stark contrast to more limited stakeholder interactions in the fee-for-service market. Healthcare providers and health plans are currently making significant monetary and resource investments, including in electronic health record (EHR), billing and other information technology systems, plus training and human resources that will help them fulfill new roles as collaborators. These investments can deliver value to the entire industry if there are consistent expectations and rules of the road related to value-based payment.

While stakeholders are eager to collaborate, they echoed one common theme in research for this report: non-uniformity is currently the norm in value-based payment implementation. They called for more standardization across a wide range of operational areas specific to value-based payment, with strong consensus for a focus on data quality and standardization, interoperability, patient risk stratification, provider attribution and quality measurement.

In the absence of operational systems designed specifically to support value-based payment, innovators and early adopters invented new systems and adapted existing systems. In context of value-based payment, for example, the most fundamental concepts and terms—"cost of care," "emergency department visit," "bundled care" and "primary care physician"—have dissimilar meanings among stakeholders. Value-based payment may require new data elements for which standardization does not yet exist and/or new uses for existing data elements for which adherence to standardization is inadequate.

Compounding the problem, no single system supports exchange of all the necessary data for value-based payment. The current claims system was designed to support reimbursement in a fee-for-service environment. EHR systems hold much of the clinical data needed for direct patient care. While these systems have moved from electronic medical record to EHR,[9] they were not intended to integrate financial and clinical data or to serve as analytics tools. In addition, EHRs have been plagued by interoperability issues. To access analyses of clinical quality data in the EHR, providers are often forced to develop separate data warehouses and custom reports. Health plans also maintain siloed systems, in which there is no clean way to integrate clinical data from providers. These data retrieval and integration roadblocks cause delays in quality-of-care analytics and prevent real-time, actionable information from reaching the point of care.

Models for patient risk stratification and provider attribution also vary considerably across the industry. Providers lament the complexity and the lack of uniformity or transparency of these processes. In a single provider setting, for example, where multiple health plans utilize different methods for these functions, the variation can be especially pronounced.

Finally, the weight of quality measurement programs is crushing. Though the measures are clinical, the burden to gather data and produce reports is operational. The measurement process for providers is inefficient, duplicative and disconnected.

In the absence of operational systems designed specifically to support value-based payment, innovators and early adopters invented new systems and adapted existing systems.

These operational challenges highlight an urgent need for operational improvement. Healthcare stakeholders must act swiftly, decisively and collaboratively to prevent value-based payment from confronting the administrative roadblocks once encountered by the fee-for-service space. The recommendations and strategies outlined in this report can help the industry learn what practices work best, reduce non-uniform processes and encourage dialog to prevent new operational barriers from slowing the progress of value-based payment.
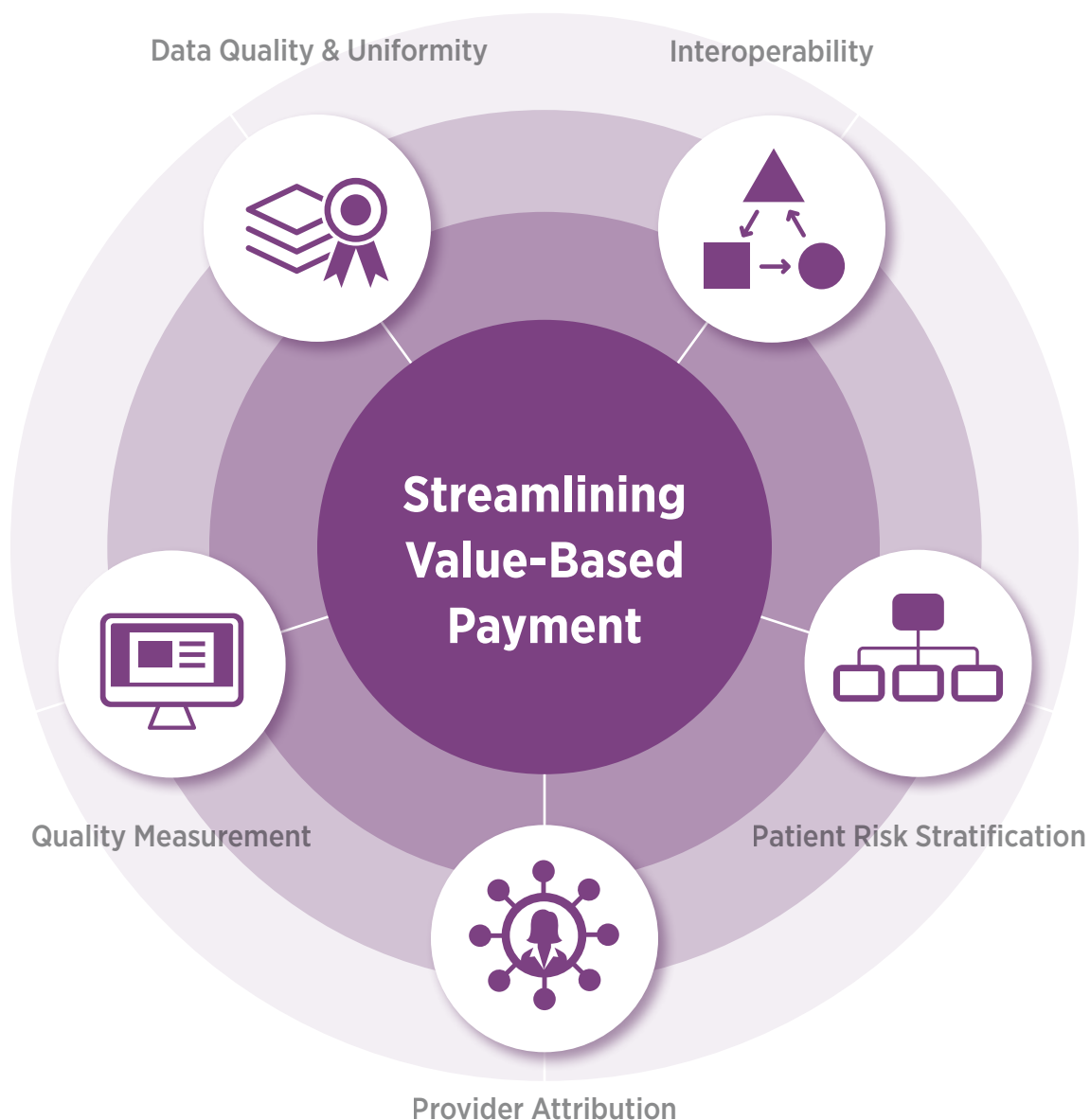
Streamlining Value-Based Payment: Industry Opportunities

1 **Opportunity Area One:**
DATA QUALITY & UNIFORMITY

UNIQUE CHALLENGES

Health plans and healthcare providers alike agreed there is already "too much data" and that this alone represents an immense challenge. However, they indicated that non-standardized data and data quality, or irregular data, pose far greater challenges to their value-based payment operations. Improving the accuracy, completeness and timeliness of data and enabling easier access to high-quality data are high priorities for participants in this CAQH CORE research. Going forward, although providers and health plans anticipated a genuine need for some new data elements, they believed improving the standardization and quality of data should be the overriding priority, whenever feasible.

There are many issues with data quality, or irregular data. Missing or inaccurate provider identification may cause inaccurate risk-based payments when a given provider's specialty and relationship to the patient are unclear. Inaccurate data about providers may also lead providers to be less successful when referring to network providers. The higher cost of out-of-network providers affects the overall amount of payment able to be made, and potentially increases the patient's out-of-pocket costs. Provider identity also plays a role in care accountability and can affect system cost. For example, if a provider moves and cannot be located for a prescription management function, an order may not be discontinued on a timely basis and medication may be unnecessarily supplied. Patient cost may also be affected if, for example, a required medical code is not applied to a prescription and the patient must pay out-of-pocket when the prescribing provider cannot be located.[10]

As another example, standards exist for the use of many, but not all, medical code sets. The Centers for Medicare & Medicaid Services (CMS) annually publishes explicit standards for the use of the ICD-10-CM/PCS medical code sets on claims.[11,12] The American Medical Association (AMA) also publishes guidelines for use of the Current Procedural Terminology (CPT®) code set on claims with each new version. In addition, HIPAA of 1996 included fraud and abuse standards. Similar guidance for operationalizing other standardized medical code sets do not exist, such as for the Logical Observation Identifiers Names and Codes (LOINC) and the Systematized Nomenclature of Medicine (SNOMED) standards.

Another source of trouble, inconsistent use of common terms that are not currently standardized, can compromise the ability to measure timeliness of care and affect patients' financial obligations. Examples include terms used to describe the date and time of an event, such as "discharge from an emergency department" or the nature of an event, such as "admission for observation."

Finally, data embedded in narrative notes in the EHR and/or supplied in paper-based documents lacks the standardization imposed by structured data and is not interoperable. As a result, this data may be disregarded since time-consuming and costly methods must be applied to extract the data for processing.

DATA QUALITY & UNIFORMITY
Recommendation 1.1

Promote and enforce existing dataset and data element standards that would benefit value-based payment execution, especially where such standards are federally mandated.

RATIONALE

CAQH CORE research identified increased industry use of the standard National Provider Identifier (NPI) as an important opportunity to support accurate value-based payment data.

Use of the NPI has been required in all HIPAA-mandated transactions since 2007. However, those interviewed by CAQH CORE observed that the NPI is not always used on claims. Some commercial health plans use a proprietary identifier and may replace the NPI on the claim with this identifier. Medicaid programs typically use both Medicaid ID and NPI (when applicable based on the provider). CMS uses both NPI and the tax identification number (TIN).

While it is clear that universal use of the NPI on the HIPAA transactions, perhaps backed by an enforcement effort, would help, the issue of provider identification is broader than this use alone. Every individual provider must be identifiable with respect to actions for which individual providers are accountable. This requires not only a unique identifier for each individual provider, but a database that must be continually maintained. Maintenance of the NPI database was an issue from the start, as staff for providers initially conducted the enrollment. If a provider moved, those initiating the identification were required to make changes. Today, changes are easier to make by the provider, but are not incorporated into the NPI database in real time.[13]

In addition to use of the NPI on claims, there can be confusion surrounding the role of the provider identified by the NPI with respect to the specialty role played for any given claim. When the NPI was first envisioned, provider groups noted that the Health Care Provider Taxonomy Code Set should be used for this purpose, especially as any given provider may practice multiple specialties, but only one specialty for a given care delivery encounter or episode. This is becoming increasingly necessary for bundled payment arrangements and other forms of value-based payment.

The result of inconsistent and inaccurate provider identification data can be the inability to conduct accurate quality measurement. Uncertainty about the role of each provider in a care team can also result in inefficient care coordination. Finally, in a value-based payment environment, the role of the provider must be clear in order to accurately disperse shared savings or shared risk.

Strategy 1.1	Candidate Organizations to Address
Promote and enforce use of the federally mandated standard National Provider Identifier (NPI) in all uses of the standard transactions. ■ Educate the provider and health plan community on the importance of individual provider identification and maintenance. ■ Explore means to uniquely identify the role of each provider in value-based payment.	■ CAQH CORE ■ CMS ■ Professional societies, including AMA, MGMA and others ■ Specialty societies ■ Standards development organizations

DATA QUALITY & UNIFORMITY
Recommendation 1.2

Pursue voluntary agreement on adoption of applicable uniform definitions and, as needed, additional data elements in HIPAA-mandated transactions.

RATIONALE

More consistent definitions of data elements and standardized use of certain code sets emerged in CAQH CORE research as needed improvements to facilitate value-based payment operations.

Many medical and non-medical code-set types aid in standardizing information and make performing comparisons easier and more effective. Inconsistent use of standardized code sets causes particular problems for value-based payment.

Misinterpretation of a medical code can skew or obscure information that is critical to value-based payment analytics. For example, when LOINC, which encode laboratory orders and results,[14] are truncated or used in non-standard ways, it can be difficult to identify why charges vary for seemingly identical laboratory tests. An analysis of such tests may reveal that the orders were directed to laboratories that use preferred, and often different, laboratory instruments or modalities, carrying different usage costs. Also, quality outcomes measurement is affected when LOINC are truncated, as valid comparisons cannot be made across the different modalities for a specific test. Standards that require full use of the LOINC, including instrumentation, could improve the quality of analytics on outcomes and the value proposition during contract negotiation.

Also, existing standardized medical code sets may not be fully utilized. A set of codes reflecting all the patient's conditions and co-morbidities may be entered on the claim by the provider, but may truncated by a claims processor. As a result, comorbidities, which require more time to manage and impact treatment options, may not be recognized.

Not all data frequently used today, and being added because of value-based payment models, are part of a standardized medical or non-medical code set (as described in the HIPAA Transactions and Code Sets regulations). The term "admission" is a good example. Today, the term "admission" may be used as an acceptance into an "emergency department" (as opposed to placement in an "urgent care department" with the patient's consent), placement in an "observation bed" following an emergency department "admission" or "day surgery" "admission," or in the traditional meaning of placement in an "inpatient hospital bed." Since these admissions have different reimbursement structures, inconsistent use of unique terms and definitions to describe them can significantly affect payment.

Value-based payment models may also require new data elements, such as data characterizing social determinants of health (SDOH), that is, the conditions in which people are born, grow, live, work and age.[15] Emphasis on SDOH is expanding, as this data is useful in programs to reduce inequities, improve health and reduce healthcare costs. SDOH information directly affects providers' abilities to conduct patient risk stratification in order to focus on those patients with emerging risk. SDOH also

A set of codes reflecting all the patient's conditions and co-morbidities may be entered on the claim by the provider, but may truncated by a claims processor. As a result, comorbidities, which require more time to manage and impact treatment options, may not be recognized.

plays a role in health plan value-based payment contracting, as accounting for SDOH may affect premiums. Moreover, collection of SDOH data by providers, who have the closest relationship and most frequent contact with patients, is critical for monitoring factors that may change over time, such as socioeconomic position or insurance coverage.

Finally, value-based payment underscores and accelerates the need for a standardized, unique patient identifier or identification process. Research participants agreed strongly that patient identification is needed to support interoperability of data across multiple providers, settings and plans. As care is increasingly delivered in outpatient and other settings, patient identification today may simply be based on the name a person presents with at the time of a healthcare encounter, resulting in the inability to accurately aggregate all data for a given patient. Even when the practice is to query patients for additional information to improve the accuracy of their identity, providers may use different data elements for this purpose. Also, each provider may assign its own unique identification number to patients. Lack of accurate patient identification can lead to duplicate diagnostic testing, medication errors due to unknown contraindications and other consequences resulting from a lack of data about patient health status. In some cases, data from several patients can be merged when it appears that records are for a single patient. The result may then appear to be duplicate testing, leading to denial of a claim, loss of revenue in a shared risk environment or lack of attention to an actual need, presumably addressed by another provider.

More consistent adoption of medical and non-medical code sets, as well as more uniform use of agreed-upon definitions, will improve care delivery and care management capabilities, promote transparency in value-based payment and strengthen the ability to perform quality and cost analyses.

Strategy 1.2	Candidate Organizations to Address
Promote standardized use of specific other data elements that are not already a standard data element in a transaction: ■ EXAMPLE 1: Support education and consistent use of existing medical and non-medical code set standards and promote standardization of non-medical terminology to improve support for value-based payment. ■ EXAMPLE 2: Study and identify the minimum data required to most accurately describe SDOH and how these data may most easily be collected and documented. ■ EXAMPLE 3: Support standardization of patient identifier / identification.	■ CAQH CORE ■ Foundations ■ Health plans ■ Government, including CDC, CMS, NCVHS, ONC and others ■ Specialty societies ■ Standards development organizations ■ Trade associations ■ Vendors

2 Opportunity Area Two: INTEROPERABILITY

UNIQUE CHALLENGES

Interoperability challenges are a pressing problem in healthcare. For those working to implement value-based payment, they are greatly magnified.

CAQH CORE research participants overwhelmingly called for improvements in interoperability—not only in semantic interoperability, as described earlier in this report with respect to standardized expression of data—but specifically technical and process interoperability.
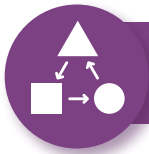
Technical interoperability for data sharing relates to the ability to pass data from one information system to another while maintaining accuracy and validity. Process interoperability relates to having common expectations for workflows, connectivity processes, timeliness of data provision, response time to inquiries or requests, security requirements, consent/authorization management and other practices that affect multiple stakeholders.

The complex and costly software products used by stakeholders today are based on existing standards, which fundamentally do not support cross-enterprise interoperability. Current standards in healthcare are largely grounded in electronic data interchange (EDI) supporting the fee-for-service business. In that environment, a limited set of pre-defined data flow between known trading partners. In value-based payment, however, data exchange needs to happen in much the same way as on the Internet, with full data privacy and security. Data increasingly needs to be appropriately and securely shared across the continuum of care by providers, between providers and health plans and with patients. Such an exchange requires different forms of standards and technologies.

Many of the hallmark features of value-based payment require the support of new and complex processes, which to date have been implemented in non-uniform ways by industry participants. Value-based payment changes patient management approaches to improve quality and reduce cost. To achieve this, new types of information are needed at various points during an episode of care. Work processes must be changed to deliver the information when and where it is needed. Improved communications with patients by both providers and health plans are necessary to support patient engagement and shared decision-making. Process changes may also require new agreements, partners, contracts, workflows and data collection.

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INTEROPERABILITY
Recommendation 2.1

Promote technical interoperability by encouraging use of existing and emerging standards and technologies.

RATIONALE

CAQH CORE research reaffirmed the need for improved technical interoperability and the potential benefits these improvements would bring to value-based payment operations.

Value-based payment requires clinical, financial and administrative data to be shared across disparate providers, between providers and health plans and with patients. While the vast majority of patient care data is tracked and managed today using an EHR, those systems still do not communicate or share data well. For example, stakeholders shared a vision for fully interoperable EHR systems capable of sharing longitudinal patient-level data. Such a system would support the development of better outcomes-based payment structures, dramatically improving the nation's health and advancing value-based payment.

A great deal of energy is already being applied to improve the interoperability of technical systems and to support the reliable exchange of clinical, financial and administrative data in value-based payment. For example, the 21st Century Cures Act, signed into law shortly after this research was completed, encourages EHR interoperability. The law also uses substantial penalties to discourage a practice known as "information blocking," or an unreasonable constraint imposed on the exchange of patient data or electronic health information.[16]

Relatively recent standards have garnered attention for their ability to achieve interoperability for improved exchange of data and documents. For example, the Health Level Seven (HL7) Consolidated-Clinical Document Architecture (C-CDA), mandated for use under the federal EHR Meaningful Use incentive program, and the Cross-Enterprise Document Sharing (XDS) interoperability profile, an initiative of Integrating the Healthcare Enterprise (IHE), have focused on both data and document sharing. Also, the recently developed HL7 Fast Healthcare Interoperability Resources (FHIR) data standard, a detailed set of data models for application programming interfaces (APIs), allows unrelated software programs to exchange clinical, administrative, public health and research data.
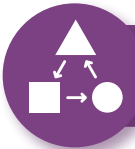
Application, or app, development is becoming extremely important for achieving healthcare interoperability. Apps developed for mobile devices, such as smartphones and tablets, often can be used on computers and medical devices, whereas applications developed for computers cannot be used on mobile devices. This characteristic makes apps developed for mobile devices easier for providers and patients to use and is thought to contribute to their willingness to use mobile apps for monitoring health status.

Emerging technologies are also continually eyed for applications in healthcare. Blockchain, the technology underpinning cryptocurrencies such as Bitcoin, has been suggested as a good fit for clinical data sharing, administrative and financial information and patient and provider identity, among others. Proponents point to inherent features of the technology—a distributed, consensus-managed, cryptographically secured database—as evidence it would untether data by eliminating interoperability limitations. However, even those who see tremendous potential for the use of blockchain in healthcare acknowledge that the technology also has inherent vulnerabilities that make its use in healthcare challenging.[17]

These and potentially other standards and solutions must be fully tested for use in a value-based payment environment. Pilot results need to be shared with standards developers, vendors and user stakeholders to support a continual improvement process. Finally, expectations need to be set for marketplace adoption.

Improved technical interoperability would eliminate a significant barrier for value-based payment. Interoperable systems would support more fluid data interactions needed to fuel actionable and trustworthy analytics for care management, quality measurement, patient attribution, risk adjustment, payment and more.

Strategy 2.1	Candidate Organizations to Address
Support technical interoperability improvements for data sharing. ■ Encourage testing and promotion of new and emerging standards for technical interoperability. ■ Educate providers, health plans and vendors on the importance of data sharing to eliminate data blocking. ■ Explore ways expectations for new standards usage can be assured, such as a form of certification or incorporation into operating rules.	■ CAQH CORE ■ ONC ■ Standards development organizations

INTEROPERABILITY
Recommendation 2.2

Promote process interoperability by cataloging value-based payment best practices.

RATIONALE

In value-based payment, success also hinges on how information is exchanged and how actions are interpreted by other stakeholders. In its research, CAQH CORE identified a significant opportunity to support value-based payment operations by improving process interoperability. More carefully choreographed workflows, processes and policies would allow stakeholders to make more reliable comparisons and act on timelier insights, among other benefits.

Workflows are one area where value-based payment is prompting changes and creating new processes. One example is the capture and use of accurate and timely encounter data. As claims may no longer be the source for reimbursement, equivalent data (i.e., claims data without an imputed charge) are still essential for risk adjustment, performance measurement and incentive programs.[18] While shared risk arrangements may not require claims per se, the encounter data held by the claim must be compiled with the same level of completeness and accuracy as claims data in order for there to be meaningful monitoring of quality and cost of healthcare services.[19,20] Research in highly capitated areas of the country identify that supplying encounter data has either been made optional or required but not compiled with as much due diligence or timeliness as claims were previously compiled.

Value-based payment processes should integrate clinical, financial and administrative data to improve health and reduce cost, a process in which timing is vital. For example, hospital admission, discharge and transfer (ADT) information can be used by providers to better coordinate care and by health plans to better understand what is happening with members. For these uses, ADT data is needed by all parties within at least one day of admission. In many cases, ADT data is currently received months after discharge. Unfortunately, CAQH CORE research indicates that this is the norm, not the exception. ADT data needed for patient care is often delivered too late to have an effect.

Process gaps and incongruences can be sources of slow data exchange. In value-based payment, CAQH CORE found that conflicting expectations are greatly hampering clinical and financial data exchange between providers and health plans. Participants acknowledged that, while some of these challenges are due to technical barriers, issues related to conflicting expectations for how data will be shared and used can be resolved with data-sharing agreements.

Connectivity, security practices and standards for data sharing that protect and assure the privacy and confidentiality, including minimum necessary use, of health information are top priorities for all stakeholders. As stakeholders interact more closely to leverage combined data for greater insight, the need for uniform security protocols arises. For example, certain events, such as when an employee leaves, should trigger a security protocol requiring, among other things, changes that prevent ongoing use of the former employee's passwords and key cards, procedures to quickly communicate employee status to vendors, and so forth.

ADT data is needed by all parties within at least one day of admission. In many cases, ADT data is currently received months after discharge. Unfortunately, CAQH CORE research indicates that this is the norm, not the exception. ADT data needed for patient care is often delivered too late to have an effect.

Strategy 2.2	Candidate Organizations to Address
Support process interoperability improvements for data sharing. ■ Compile and disseminate workflow and policy best practices for value-based payment as a means to introduce needed changes. ■ Address applicable workflow and policy processes in operating rules for value-based payment among willing trading partners.	■ CAQH CORE ■ Government, Including CMS, OCR and ONC ■ Health Care Payment Learning and Action Network ■ Professional societies ■ Specialty societies ■ Trade associations

3 Opportunity Area Three: PATIENT RISK STRATIFICATION

UNIQUE CHALLENGES

Value-based payment initiatives have made risk assessment an essential process. It must be understood that risk assessment is used for different purposes with different methodologies by health plans and healthcare providers. Health plans have long conducted risk assessment using proprietary, actuarial models to determine premiums. This form of risk assessment is most often referred to as "member risk adjustment."

Today, health plans and healthcare providers both conduct another form of risk assessment using different models to characterize patients' risk as they age, as their financial circumstances change, or as other factors affect their health over time. For example, individuals may be identified as high risk, emerging risk or low risk in order to focus care coordination on patients who need careful, proactive management.[21] This form of risk assessment is referred to as "patient risk stratification."

CAQH CORE found two dominant operational challenges posing barriers to successful patient risk stratification in value-based payment.

First, many healthcare providers are unclear about how health plans are using risk assessment—and whether member risk adjustment tools are being applied for patient risk stratification. This lack of clarity has eroded trust and may be influencing health plan–healthcare provider relationships. Second, even when it is clear that health plans are using a patient risk stratification methodology, each plan with which a healthcare provider contracts may use a different methodology or modify a published methodology. This additional layer of complexity may prevent providers from achieving the same results as payers when conducting patient risk stratification.

Each health plan that a provider contracts with may apply a unique model that could potentially categorize patients differently from the provider's categorization. For example, model A from health plan A may include certain risk factors for individuals with emergent risk that are not addressed by provider B in its model B. The two models deliver divergent results: Similar patients are stratified differently based only on specific artifacts of the risk stratification models being applied. While different risk stratification methodologies may be appropriate for different types of patient populations, the ability to accurately identify the methodology used, and to streamline the number of methodologies used, would reduce administrative burden and assure that providers are focusing resources on appropriate patient populations, reducing provider risk in a shared savings or shared risk payment environment.

While different risk stratification methodologies may be appropriate for different types of patient populations, the ability to accurately identify the methodology used, and to streamline the number of methodologies used, would reduce administrative burden and assure that providers are focusing resources on appropriate patient populations, reducing provider risk in a shared savings or shared risk payment environment.

Another factor that affects both healthcare providers and health plans as they attempt to stratify patient risk is acquiring accurate and timely data. Even though many providers recognize the importance of patient risk stratification and factor it into their thinking, their EHRs typically do not support some of the data collection needed for a formal patient risk stratification process. These processes may

require data elements, such as those characterizing the nature of the community in which patients live, their marital status, and so forth. Some models use many data elements, while others rely on just a few. Also, EHRs generally are not capable of producing reminders at the point of care or a call list of patients to support care coordination. The result is a hit-or-miss situation that does not focus on reducing escalating risk. In addition, health plans generally do not have access to this evolving data, so they may be relying upon old or limited data as they attempt to perform patient risk stratification as a means to assist in care coordination.

While it may not be possible for the industry to coalesce around a standard method of patient risk stratification, CAQH CORE research indicated strong interest in a more transparent and unified approach. An initiative to engage key stakeholders to identify how existing models are currently used and to begin the process of recommending models for different uses is a key first step to eventually achieving consensus on a standard suite of risk stratification models.
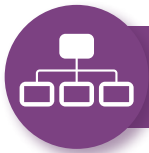
PATIENT RISK STRATIFICATION
Recommendation 3.1

Increase industry awareness of the threats data inaccuracy/unavailability and methodology variation pose to value-based payment operational success.

RATIONALE

It is important for the industry to understand the unique and important role that patient risk stratification plays in value-based payment. While it may not be appropriate to use a single framework for patient risk stratification, it is important to understand the purpose of any variation and for healthcare providers to be measured against a known methodology. Given the industry-wide transition to value-based payment models is still evolving, this is a key opportunity for entities to build industry collaboration.

Strategy 3.1	Candidate Organizations to Address
Key multi-stakeholder organizations should conduct industry outreach and education on the role of risk stratification for value-based payment operations and challenges to risk stratification.	■ CAQH CORE ■ CMS ■ Professional societies ■ Specialty societies ■ Trade associations

PATIENT RISK STRATIFICATION
Recommendation 3.2

Promote industry collaboration and transparency of risk stratification models and their content.

RATIONALE

The total number of risk stratification models is unknown. There are approximately seven publicly available models most commonly used for risk stratification, with others emerging as use of value-based payment accelerates.[22,23] All of these models are based, to some degree, on comorbidity. While several of the methods are similar, others are unique to a specific population.[24] Little is known about the proprietary models used for risk stratification, including the extent to which these models draw on publicly available models. There has been no known cost analysis or demonstration of the effectiveness of each model to guide the industry in best use.

Given the lack of transparency, the industry would benefit from more research on the efficacy of risk stratification approaches, a first step to creating a set of standard individual risk stratification methodologies that would benefit both providers and health plans.

Strategy 3.2	Candidate Organizations to Address
Encourage transparency of risk stratification models and their content focusing on variation in content, definitions of terms and associated leading practices in use with each of the models.	■ Analytics organizations ■ CAQH CORE ■ Population health organizations ■ Trade associations

4 Opportunity Area Four:
PROVIDER ATTRIBUTION

UNIQUE CHALLENGES

In value-based payment models, providers take on responsibility for the care of specific patients in a population. A process called "attribution" matches individual patients in a population with providers. Attribution ultimately determines the patients for which a provider (as an individual or as an organization) is responsible within a population.[25]

Subsequent analytics draw heavily on the attributed population's individual patient health data. For example, attribution forms the basis of analysis for metrics underpinning value-based payment, such as total costs of care, outcomes and distribution of shared savings/shared risk.

Healthcare providers participating in CAQH CORE research were quick to identify attribution as an important opportunity area for improvement in value-based payment operations. While it is essential for providers to understand attribution models when they engage in value-based payment arrangements, many indicated that they encounter barriers when trying to understand how patients are attributed to them.

For example, many providers observed that they often are not informed about their attributed patients. As a result, providers feel an important and useful feature of value-based payment is not being fully utilized to help them proactively manage these patients' health.

One reason for this lapse is use of the provider's Tax Identification Number (TIN) for attribution of patients. Providers frequently bill under multiple TINs or may bill under TINs that specify identification at the group or organization level. In these cases, reliance on the TIN for provider attribution is inadequate.

Also, the large number of attribution methodologies is a source of provider frustration, as it can obscure the provider's view of the patient's true care coordination needs. For example, a health plan may attribute patients into a provider organization or Accountable Care Organization (ACO) but then leave it up to the provider organization to attribute patients to specific physicians. In some models, patients may prospectively attribute themselves by choosing a provider. Currently, there is a trend towards prospective models, as providers are increasingly measured on quality-of-care metrics and timeliness of reports.[26] Prospective attribution assumes that patients will continue to use the same provider. Prospective attribution can be patient-based (discrete medical services) or episode-based (grouping of medical services based on a disease or condition).[27] In other models, providers may prospectively identify patients for attribution or retrospectively identify them through prior-year claims data. If patients do not have a claims history, payers can use other criteria, such as geography, to attribute patients. Other models also exist that use factors such as type of provider and timing.[28,29,30,31] Without a full understanding of the methodology used, providers can make erroneous assumptions, leading them to make ineffective decisions about which patients need the most attention.

For example, a provider with 15 health plan contracts could potentially have patients attributed in a multitude of ways. While each patient may

While it is essential for providers to understand attribution models when they engage in value-based payment arrangements, many indicated that they encounter barriers when trying to understand how patients are attributed to them.

still be attributed to only one provider, the logic behind the attribution may not be known, making it difficult for any single treating provider to identify the provider to whom a given patient is attributed. Furthermore, a patient may have been attributed to one provider, only to never use that provider as a primary care provider. For example, many diabetics see an endocrinologist as their primary care provider, but these providers may not always recognize their role in care coordination. Provider attribution may also be different than payment arrangements. For example, a patient with a primary care provider may see an orthopedic surgeon for a joint replacement, but the bundled payment arrangement may not include the primary care provider.

As with patient risk stratification, CAQH CORE research suggests that it may not be feasible to reduce the number of provider attribution methodologies, especially at this stage of value-based payment implementation. However, there is the potential to improve attribution by promoting accountability for patient care through improved accuracy and clarity of attribution data and streamlining and improving transparency of attribution models to reduce variation.

PROVIDER ATTRIBUTION
Recommendation 4.1

Improve provider awareness of patient attribution through clearly defined and accurate provider data.

RATIONALE

Clearly defined and accurate data are needed to attribute patients to providers. Identifying providers at the individual level, their relationships to other providers (e.g., same group, same physical location, within network) and their specialty with respect to their patients (e.g., PCP, specialist by type) can improve the accuracy of patient attribution.

In addition to use—and potential expansion—of the standard NPI, as described earlier in this report, the industry needs clearly defined data to attribute providers to a service provided. This includes identifying provider relationships with individuals, the specialty a provider may be applying to specific services and relationships between providers for risk sharing. Some state health information exchanges and large health systems are addressing a portion of these issues at the state or system level.

Strategy 4.1	Candidate Organizations to Address
Promote use of standardized data elements and provider attribution methodologies that identify providers at the individual level, as well as their relationships to other providers.	■ CAQH CORE ■ CMS ■ Health information exchanges ■ Health plans ■ Professional societies

PROVIDER ATTRIBUTION
Recommendation 4.2

Streamline and improve transparency in use of attribution models.

RATIONALE

Extensive variation in attribution models and the frequent lack of transparency about the model make it difficult for providers to understand how their patients are attributed. This confusion can lead to gaps in managing the care of patients who are attributed to them.

Attribution methods must be fair and understandable to both patients and providers. Patients need to understand why they may be assigned to see a given PCP. If patients opt to choose a different PCP, there must be a process to change the attribution so that accurate cost and quality comparisons can be made in order to ensure a realistic picture of whether value-based payment is meeting its goals.

Strategy 4.2	Candidate Organizations to Address
Catalog provider attribution models and develop a library of leading practices for provider attribution.	■ CAQH CORE ■ CMS ■ Health plans ■ Professional societies ■ Trade associations

5 Opportunity Area Five: QUALITY MEASUREMENT

UNIQUE CHALLENGES

Effective measurement of process performance and outcomes is foundational to value-based payment. More revenue is at risk than ever before, with a host of financial incentives—rewards and penalties alike—tied to clinical performance and outcomes.

While quality measurement programs predominantly collect and analyze clinical data, many of the operationally focused participants in the CAQH CORE research noted that delivering the data and reports needed for quality measurement can present an operational challenge. They indicated that, in many cases, redundant information is collected and communicated inconsistently, presenting opportunities to eliminate noise and free resources to fix the gaps.

CAQH CORE identified three specific operational challenges posed by quality measurement that provide opportunity for improvement.

First, providers reported an over-proliferation of quality measures in the industry and low consistency in the measures required across health plans and performance initiatives. A study by the National Quality Forum (NQF) found that in the second quarter of 2014 alone, 33 CMS programs—Medicare, Medicare Advantage, all of the Medicaid managed plans, and all of the federal individual exchange market plans—collectively used more than 850 unique measures, with only one-third of the measures used in more than two CMS programs. Similarly, in the private market, different measures are often utilized by multiple private insurers in both employer-sponsored health plans and plans sold in the individual market.[32] In addition to reporting requirements for value-based payment programs, most providers are also required to supply measures to accreditation agencies, professional societies, registries and other organizations for multiple different purposes ranging from credentialing to medical research.[33]

Second, providers are also burdened by the process to generate quality data reports for value-based payment initiatives. A recent Medical Group Management Association study of primary care and selected specialty members found that physicians and staff spent 15.1 hours per physician per week entering information into health records and on other activities for the sole purpose of reporting on quality measures from external entities.[34] Additionally, not all necessary quality measurement data are available in EHRs. Getting the data from the EHR into the quality measurement reporting format is not always streamlined.[35] Workflows also do not necessarily support consistency in data collection. For example, data for a measure looking at emergency department wait time may vary based on whether a patient is registered before or after being triaged.[36] The significance of the measures can sometimes be diluted due to the sheer amount of effort and tracking required.[37]

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In many cases, redundant information is collected and communicated inconsistently, presenting opportunities to eliminate noise and free resources to fix the gaps.

Finally, although there are different types of quality measures for different purposes, there is also a need for quality measure reporting to prioritize the use of provider resources, focusing on the collection of data that is useful to improving care and that can address consumer concerns.[38] As previously noted, quality measurement programs consume a considerable amount of provider and staff time, yet not all collected data is ultimately used by the entity collecting it. Also,

providers question whether quality measures ultimately improve patient outcomes.[39] When quality measures are reported to consumers, the information is often confusing or not useful. For example, a study of four leading hospital report cards found that only 10 percent of the 844 hospitals evaluated achieved a "high performer" rating by more than one of the report cards.[40] Also, many of the measures reported to consumers address processes, such as timing of medication administration prior to surgery, which are not directly relevant to consumers.[41]

QUALITY MEASUREMENT
Recommendation 5.1

Support industry efforts to address quality measure challenges and promote harmonization.

RATIONALE

Many organizations noted that the number of quality measures, as well as their lack of focus, consistency and organization, presents a challenge.[42] A variety of state or regional efforts are focused on improving quality measurement and reporting. The Network for Regional Healthcare Improvement (NRHI) identifies more than 30 such collaboratives for improving data, providing transparency and sharing insights to speed innovation and accelerate progress toward reform.[43] There is currently a renewed effort to address the issue through various core measure projects. In 2014, America's Health Insurance Plans (AHIP) convened leaders from health plans, CMS, NQF, and national physician organizations to form The Core Quality Measures Collaborative.[44] In 2016, the collaborative released seven sets of core clinical quality measures to align public and private payers on quality measures to support new patient-centered payment and delivery system reforms.[45,46] Industry work to streamline quality measurement and promote harmonization should focus on contributing to these and other existing industry efforts.

Strategy 5.1	Candidate Organizations to Address
Conduct industry education on quality measurement goals, such as: ■ Improving consistency in quality measures across programs, ■ Reducing the quality measure data collection burden and ■ Requiring quality measures to be actionable.	■ CMS ■ Core Quality Measures Collaborative ■ Professional societies ■ Specialty societies ■ Trade associations ■ Quality organizations, including AHRQ, NQF and others

Call to Action

The early signs of value-based payment variation documented in this report constitute an opportunity to shape this emerging payment system.

Value-based payment—and the associated operational processes—are still relatively young. By comparison, when CAQH CORE began to address fee-for-service administrative complexity in 2005, the system was quite mature. And, stakeholders were growing increasingly frustrated by their lack of progress in the transition from manual fee-for-service transactions to electronic.

Contemporary best practices, technologies and "lessons learned" on behalf of fee-for service can be applied to strengthen the foundation of value-based payment. This includes the resources of CAQH CORE, with a proven track record as a leader of multi-stakeholder collaborations and author of operating rules that have moved the needle to automate fee-for-service administrative processes. In addition, numerous potential industry collaborators, many of which have worked alongside CAQH CORE to reduce the fee-for-service administrative burden, bring a wealth of experience and perspective to this effort.

Going forward, collaboration will become the currency of value-based payment. As implementation progresses, for example, health plans and provider organizations are expected to become data and analytics partners. By collaborating to leverage their respective data strengths, these stakeholders can illuminate blind spots in care management and reveal richer insights about practice variation.[47]

Operational enhancements, such as those proposed in this report, put more stakeholders on a good footing as potential data collaborators. By improving the reliability of data and interoperability; bringing clarity to patient risk stratification and provider attribution; and streamlining quality measurement, stakeholders will lay the foundation for improved communication.

As acknowledged throughout this report, many industry and government initiatives already are working to improve value-based payment operations. CAQH CORE applauds ongoing efforts and calls on candidate organizations, including those identified in this report and others that see a role for their organization, to take action.

. . . .

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Appendix A:
Summary of Recommendations and Strategies

OPPORTUNITY AREA 1:
DATA QUALITY & UNIFORMITY

RECOMMENDATION 1.1

Promote and enforce existing dataset and data element standards that would benefit value-based payment execution, especially where such standards are federally mandated.

Strategy 1.1	Candidate Organizations to Address
Promote and enforce use of the federally mandated standard National Provider Identifier (NPI) in all uses of the standard transactions. ■ Educate the provider and health plan community on the importance of individual provider identification and maintenance. ■ Explore means to uniquely identify the role of each provider in value-based payment.	■ CAQH CORE ■ CMS ■ Professional societies, including AMA, MGMA and others ■ Specialty societies ■ Standards development organizations

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RECOMMENDATION 1.2

Pursue voluntary agreement on adoption of applicable uniform definitions and, as needed, additional data elements in HIPAA-mandated transactions.
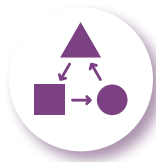
Strategy 1.2	Candidate Organizations to Address
Promote standardized use of specific other data elements that are not already a standard data element in a transaction: ■ EXAMPLE 1: Support education and consistent use of existing medical and non-medical code set standards and promote standardization of non-medical terminology to improve support for value-based payment. ■ EXAMPLE 2: Study and identify the minimum data required to most accurately describe SDOH and how these data may most easily be collected and documented. ■ EXAMPLE 3: Support standardization of patient identifier / identification.	■ CAQH CORE ■ Foundations ■ Health plans ■ Government, including CDC, CMS, NCVHS, ONC and others ■ Specialty societies ■ Standards development organizations ■ Trade associations ■ Vendors

OPPORTUNITY AREA 2:
INTEROPERABILITY

RECOMMENDATION 2.1

Promote technical interoperability by encouraging use of existing and emerging standards and technologies.

Strategy 2.1	Candidate Organizations to Address
Support technical interoperability improvements for data sharing. ■ Encourage testing and promotion of new and emerging standards for technical interoperability. ■ Educate providers, health plans and vendors on the importance of data sharing to eliminate data blocking. ■ Explore ways expectations for new standards usage can be assured, such as a form of certification or incorporation into operating rules.	■ CAQH CORE ■ ONC ■ Standards development organizations

RECOMMENDATION 2.2

Promote process interoperability by cataloging value-based payment best practices.

Strategy 2.2	Candidate Organizations to Address
Support process interoperability improvements for data sharing. ■ Compile and disseminate workflow and policy best practices for value-based payment as a means to introduce needed changes. ■ Address applicable workflow and policy processes in operating rules for value-based payment among willing trading partners.	■ CAQH CORE ■ Government, Including CMS, OCR and ONC ■ Health Care Payment Learning and Action Network ■ Professional societies ■ Specialty societies ■ Trade associations

OPPORTUNITY AREA 3:
PATIENT RISK STRATIFICATION

RECOMMENDATION 3.1

Increase industry awareness of the threats data inaccuracy/unavailability and methodology variation pose to value-based payment operational success.

Strategy 3.1	Candidate Organizations to Address
Key multi-stakeholder organizations should conduct industry outreach and education on the role of risk stratification for value-based payment operations and challenges to risk stratification.	■ CAQH CORE ■ CMS ■ Professional societies ■ Specialty societies ■ Trade associations

RECOMMENDATION 3.2

Promote industry collaboration and transparency of risk stratification models and their content.

Strategy 3.2	Candidate Organizations to Address
Encourage transparency of risk stratification models and their content focusing on variation in content, definitions of terms and associated leading practices in use with each of the models.	■ Analytics organizations ■ CAQH CORE ■ Population health organizations ■ Trade associations

OPPORTUNITY AREA 4:
PROVIDER ATTRIBUTION

RECOMMENDATION 4.1

Improve provider awareness of patient attribution through clearly defined and accurate provider data.

Strategy 4.1	Candidate Organizations to Address
Promote use of standardized data elements and provider attribution methodologies that identify providers at the individual level, as well as their relationships to other providers.	■ CAQH CORE ■ CMS ■ Health information exchanges ■ Health plans ■ Professional societies

RECOMMENDATION 4.2

Streamline and improve transparency in use of attribution models.

Strategy 4.2	Candidate Organizations to Address
Catalog provider attribution models and develop a library of leading practices for provider attribution.	■ CAQH CORE ■ CMS ■ Health plans ■ Professional societies ■ Trade associations

OPPORTUNITY AREA 5:
QUALITY MEASUREMENT

<table>
<tr><td colspan="2">RECOMMENDATION 5.1</td></tr>
<tr><td colspan="2">Support industry efforts to address quality measure challenges and promote harmonization.</td></tr>
<tr><td>Strategy 5.1</td><td>Candidate Organizations to Address</td></tr>
<tr><td>

Conduct industry education on quality measurement goals, such as:

- Improving consistency in quality measures across programs,
- Reducing the quality measure data collection burden and
- Requiring quality measures to be actionable.

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- CMS
- Core Quality Measures Collaborative
- Professional societies
- Specialty societies
- Trade associations
- Quality organizations, including AHRQ, NQF and others

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Appendix B:
Research Methodology

This report reflects the results of an extensive two-phase research project conducted by CAQH CORE to assess the uniformity of value-based payment operations and identify potential opportunity areas that, if improved, would contribute to sustainable industry-wide success. CAQH CORE performed its research over an 18-month period in 2016 and 2017, a period in which the value-based payment market advanced and relevant federal mandates were rolling out.

In the first phase of the project, CAQH CORE conducted secondary research to fully understand the problem space and identify a set of potential opportunity areas that were operational in nature. Secondary research included an environmental scan and a strengths, weaknesses, opportunities and threats (SWOT) analysis to:

- Define terms and trends associated with value-based payment, including terminology to describe the value concept and its payment models.

- Confirm the need for streamlining administrative processes associated with value-based payment.

- Identify potential areas for action that CAQH CORE and others could undertake that would make a significant difference in value-based payment operations.

In the second phase of the project, primary research validated the potential opportunity areas based on direct feedback and market changes.

Interviews were conducted with organizations experienced in value-based payment, including five provider organizations of varying sizes, six health plans/health plan associations of varying sizes, and eight technology vendors and health information exchange companies. The majority of those interviewed reflect experience with early models of value-based payment superimposed on fee-for-service. A few were experienced with Medicare shared savings, and one had experience with bundled payments (notably joint replacement procedures).

A survey of CAQH CORE participants was conducted to learn about their reactions to the primary research findings. Thirty-seven participants responded, representing 11 health plans/health plan associations, six providers/ provider associations, and 20 vendors, clearinghouses, government and others.

About the Authors

CAQH CORE

CAQH CORE is a nonprofit collaboration of over 130 public and private health plans, hospitals and health systems, vendors and other stakeholders across the industry. Through this collaboration, CAQH CORE helps stakeholders uniformly adopt electronic transactions and exchange data efficiently.

Since 2005, CAQH CORE has developed and issued four phases of operating rules that support standards, accelerate interoperability and align fee-for-service administrative activities among providers, payers and consumers. These rules cover all major categories of healthcare business transactions, including eligibility and benefits verification, payment and remittance, prior healthcare authorization, employee premium payment and enrollment and disenrollment in a health plan. CAQH CORE is the author of three sets of operating rules mandated by the Patient Protection and Affordable Care Act (ACA), a role it was named to fill by the Secretary of Health and Human Services (HHS).

Voluntary CORE Certification, which ensures the Operating Rules are used consistently, is currently available for Phases I – IV. More than 330 certifications have been earned to date by health plans, providers and vendors.

The emergence of value-based payment led the CAQH CORE Board of Directors to expand the scope of the organization in 2015. In addition to its original vision of driving unnecessary cost from fee-for-service data exchange, CAQH CORE is now also focused on helping collective exchange needs for value-based payment. In the coming years, CAQH CORE anticipates the development of many productive and collaborative efforts that advance leading practices and ultimately help stakeholders streamline value-based payment operations.

For more information, visit www.caqhcore.org.

Boundary Information Group

Boundary Information Group (B.I.G.) is a virtual consortium of leading health care consultants improving the value of health care through innovative information management and e-commerce. Steven S. Lazarus, PhD, and Margret Amatayakul, BIG consultants, have been providing health IT services to physician practices, hospitals, health plans, and their business associates for more than 25 years. Such support has included working to formulate the HIPAA Administrative Simplification transactions and code sets, privacy, security, identifiers, and uniform data standards. The firm provides strategic planning, requirements analysis, system selection, contract negotiation, and implementation support for EHRs; conducts HIPAA risk analysis for privacy, security, breach notification, and transactions compliance; and strategic planning for and implementation tools for value-based care programs.

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