Defining the Provider Data Dilemma

CHALLENGES, OPPORTUNITIES AND CALL FOR INDUSTRY COLLABORATION

CAQH®

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Challenges, Opportunities and Call for Industry Collaboration

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

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Introduction

Provider data drives the most fundamental processes in the healthcare system. The industry relies on it to connect patients with healthcare professionals, license providers, exchange information and pay for services. Inaccurate provider data puts patient care and billions of dollars at risk. According to conservative estimates, the commercial healthcare industry spends at least $2.1 billion annually maintaining provider databases.[1] Without high-quality provider data, stakeholders face significant challenges. For example:

- Patients seek care from out-of-network providers;
- Providers endure unnecessary billing and administrative complications;
- Health information exchanges (HIEs) and organizations cannot effectively enable the secure sharing of patient information; and
- Health plans have higher than necessary administrative burden and costs, and risk violating state and federal requirements.

While provider data is essential to our healthcare system, access to high-quality provider data remains elusive; it is exceedingly difficult to maintain and often contains errors. This paper explores critical provider data elements, summarizes major challenges associated with creating and maintaining high-quality provider data and proposes areas where the industry can collaborate to make demonstrable progress toward improving provider data. The paper is intended to be a catalyst for industry-wide discussions—a starting point for stakeholders to identify mutual interests and work together to produce high-quality provider data.

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A Tumultuous Market, A Need for Better Information

The healthcare system is undergoing a transformation that has not been witnessed since the advent of Medicare and includes new insurance marketplaces, expanded public and commercial coverage, rapid digitization and emerging value-focused regulatory and payment reforms. As the industry adjusts, it faces a daunting but necessary task of safely and securely assembling provider data to manage risk, meet consumer demand, improve quality, control costs and support decision making.

Accurate provider data is crucial for healthcare business processes and patient care.

Critical business processes rely on accurate provider data. Health plans and providers produce and use it to process payments, detect fraud and abuse, validate credentials, exchange clinical information, manage and coordinate care and develop insurance products. Regulators rely on it to oversee networks and health plan products, ensure compliance and license providers. Consumers rely on it to select health plan products and seek care.

The evolving healthcare system requires high-quality provider data to function effectively.

Over the past decade rising healthcare costs and federal and state policy have intensified the need for high-quality provider data.[2] Consumers bear a significant burden of rising costs—workers have seen an 81% increase in their healthcare premium and out-of-pocket contributions.[3] New and evolving insurance products intended to address rising costs increase the burden on providers and health plans to manage and participate in these complex arrangements, federal and state agencies to regulate them and for consumers to shop and find providers.[4] None of this can be effectuated without precise and accurate information to inform decision making.

The 2010 Affordable Care Act (ACA) took steps to address rising costs and coverage gaps by expanding Medicaid, creating insurance mandates and marketplaces and establishing new regulation and payment reforms that increased provider and health plan pressure to improve quality and control costs. The ACA has further accelerated consolidation, resulting in provider and facility acquisitions, health plan mega-mergers and integration of health plans and providers.[5] In response to these widespread changes, federal and state agencies and policymakers are taking steps to protect consumers through new rules addressing network adequacy, provider directories and fraud. These factors heighten the imperative to gain better visibility into network composition, and require far more efficient systems to compile, validate and update provider data. Payment reforms introduced in the 2015 Medicare Access and CHIP Reauthorization Act (MACRA) will create even more urgency for systems

to better manage provider data as new Medicare payment policies roll out and net-works coalesce to protect against downside risk.

High-quality provider data also enables further innovation by supporting trans-parency initiatives and the development of new reimbursement models, insurance products and tools to manage individual and population health.

The industry must balance the challenges of a digital world with consumer protections.

In 2015, millennials became the plurality of the US workforce; this generation is the first to be raised in the digital age and has high expectations that the products and services be conveniently and electronically accessible.[6] They are not alone—72% of adults in the United States own a smartphone and over half of mobile phone users are downloading one of over 165,000 health-related mobile apps.[7,8,9] The healthcare system has only recently made significant strides to digitize; the 2009 Health Infor-mation Technology for Economic and Clinical Health (HITECH) Act stimulated a mass migration toward electronic health records (EHRs). In 2008, 9% of hospitals had an EHR, compared to 96% of hospitals in 2015.[10]

The emerging digital healthcare system has significant benefits but also comes with significant risks. According to IBM, the healthcare industry experienced the most cyber-attacks of any industry in 2015, with over 100 million records compromised.[11] This has resulted in more regulatory scrutiny and penalties, increased overhead and created an environment sensitive to sharing information. While these risks are challenging, the need for high quality provider data to meet industry and consumer demands necessitates strategic efforts to lower vulnerabilities and overcome threats.

Laying the Foundation for a Meaningful Provider Data Conversation

This paper proposes a framework for defining provider data—its critical data elements and use cases—to clearly demonstrate how all stakeholders share a common need for timely and accurate provider data.

What is a provider?

As the healthcare industry changes, the meaning of "provider" is changing. Today, "provider" extends beyond physicians, hospitals and allied health professionals[12] to other practitioners and institutions who deliver or coordinate healthcare services, such as: nurse practitioners, social workers, addiction counselors, community health centers, behavioral health agencies and other community-based organizations.[13] The extended complement of "providers" often address patients' underlying social determinants of health, such as housing, transportation, access to healthy food and employment. Provider data management has historically focused on traditional clinicians, but given the industry's migration toward value-based care and increasing reliance on other provider types, addressing today's provider data challenges must include a more expansive definition of "provider."

### Emerging Provider Types Require Shifting Definition of "Provider"

The role of allied and non-traditional providers continues to grow within the healthcare system, and with it the administrative burden for health plans and providers. The National Uniform Claim Committee is a voluntary organization that maintains a standardized data set for transmitting claim and encounter information to and from all third-party payers. This data set continues to be expanded as new billable provider types, such as athletic trainer and applied behavioral analyst, become recognized. Additionally, other providers, such as nurse practitioners and physician assistants, have become increasingly important to the system as it seeks to meet patient needs while controlling costs. With each new provider type, state and federal regulators must define expectations for credentialing and maintaining provider information in a health plan directory.

What is provider data?

Provider data, simply put, is information about individual providers, groups of providers and institutions—who or what they are, how to access them, the services they provide, the health plan networks or products they participate in and other important attributes. These data facilitate everyday business and regulatory transactions, or "use cases," such as claims processing, credentialing, contracting and licensing, and allow patients to find and access care. While provider data is conceptually straightforward, it is incredibly complex to standardize, manage and maintain.

To illustrate the point, a typical practice holds, on average, 12 managed care contracts with health plans at any given time, and each health plan requires approximately 140 different provider data elements for contract management.[14] A practice with five providers and the average number of managed care contracts must manage 8,400 data points. Further, each health plan may require their contracted providers to report different data sets in different formats at different frequencies. Without industry-wide standards, providers are often left on their own to navigate and manage disparate reporting requirements and data elements, consuming valuable clinical and administrative time. Health plans face similar burdens, managing data for thousands of providers across thousands of contract and network permutations, while being responsive to state and federal requirements.

As the healthcare industry changes, the meaning of "provider" is changing.
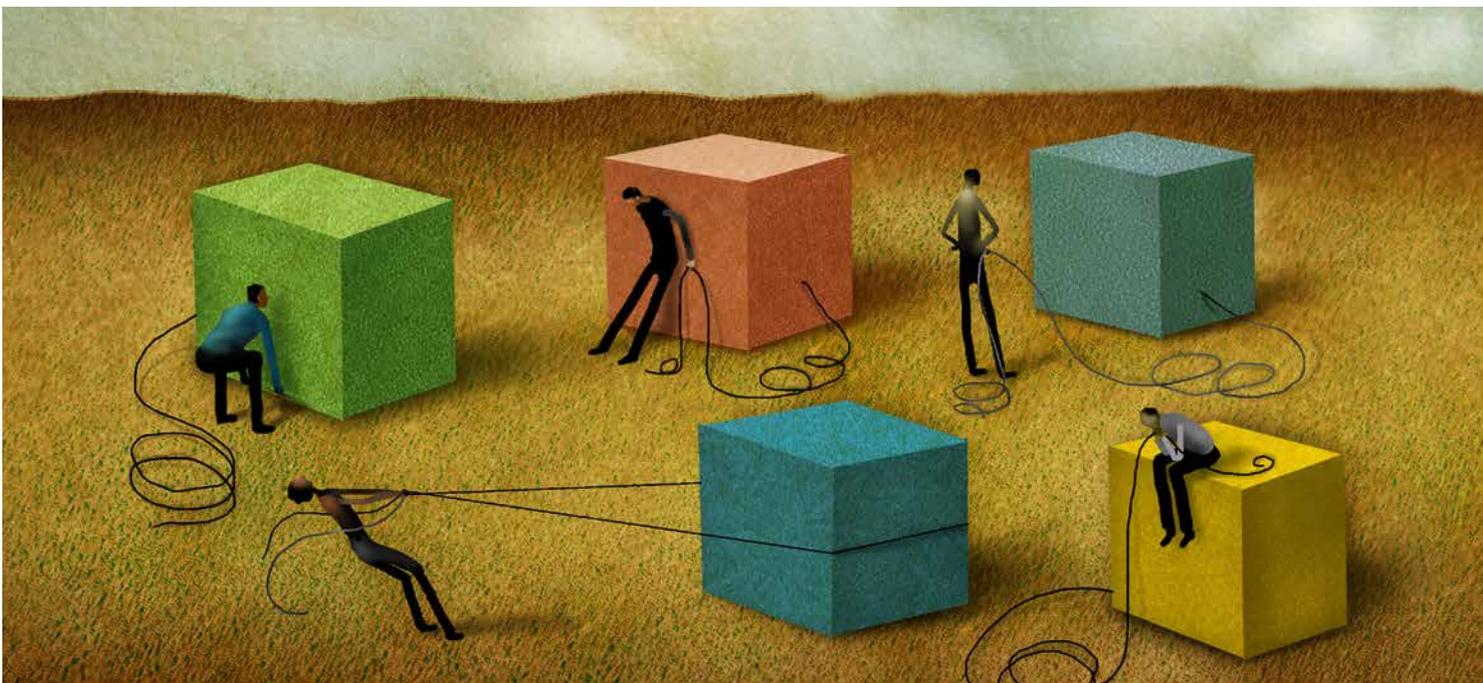
This paper organizes provider data in three categories: (1) demographic, (2) facility or organization-level and (3) performance and quality. Some provider data elements are relatively static. For example, personal data elements, such as a provider's name, specialty and education change infrequently, if at all, throughout one's career. Other data elements, such as practice location, the specific health plan products providers participate in and whether providers are accepting new patients are dynamic, and may change frequently (*Figure 1*).

FIGURE 1. Provider Data Categories and Examples of Static and Dynamic Data Elements

Data Category	Description	Example Static Data Elements	Example Dynamic Data Elements
Demographic data	Personal and professional data that is primarily self-reported by a healthcare professional	*Personal* • First and last name • Gender • Date of birth • Social Security Number (SSN) *Professional* • Medical education (e.g., school, residency) • Specialty • Medical license number • DEA number • National Provider Identifier (NPI)	*Personal* • Email • Phone number *Professional* • Direct[15] or electronic address • Privileges • Malpractice coverage • Work history
Facility or organization-level data	Data associated with a facility or organization where healthcare professionals are located and deliver services	• Facility or organization name • Taxpayer Identification Number (TIN)	• Address/locations • Accessibility, hours of operation • Health plan product participation • Network affiliations • Contact information
Performance and quality data	Data about an individual healthcare professional, facility or organization's performance	NA	• Ratings (e.g., HEDIS, CG/HCAHPS, Medicare Star ratings) • Consumer generated indicators (e.g., Yelp reviews) • Malpractice/license actions

How do stakeholders interface with provider data?

Health plans, providers, consumers, government agencies and regulators all may function as provider data **producers** and **users**. A **producer** generates and may share provider data with one or multiple **users**. For example, a provider produces professional and practice information that is used by a health plan to pay a claim. A **user** receives provider data from one or more **producers** to support specific business processes and decision-making. For example, a health plan develops a directory of "in-network" providers for a specific product using demographic information generated by providers.

Because many stakeholders are both producers and users of provider data, they depend on each other to successfully generate and use it to support essential functions. While the universe of provider data elements is large, there is a subset of core data elements that drive critical use cases across stakeholders (*Figure 2*).

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FIGURE 2. Critical Provider Data Use Cases and Common Data Needs

Health Plans (Public & Private)

Critical Use Cases
• Network development
• Contracting
• Credentialing
• Care and utilization management
• Claims processing
• Quality
• Fraud and abuse

COMMON PROVIDER DATA NEEDS

Demographic— Personal
• First and last name
• Gender
• Age
• SSN
• Languages spoken
• Race/Ethnicity

Demographic— Professional
• Specialty
• Medical education
• NPI
• DEA number
• Medical license number
• Privileges

Performance & Quality
• HEDIS, CG/HCAHPS, Medicare Star Ratings
• Consumer generated indicators

Facility/Organization
• Name
• Address/locations
• Accessibility, hours of operation
• Health plan product participation

Government/ Regulators

Critical Use Cases
• Network adequacy
• Licensing
• Emergency response
• Consumer protection
• Fraud and abuse

Providers

Critical Use Cases
• Care management
• Network management
• Credentialing, privileging and licensing
• Claims payment
• Quality

Consumers

Critical Use Cases
• Health plan and provider selection
• Accessing care
• Research and ratings
• Managing and maximizing benefit

Other (HIEs, vendors & marketplaces)

Critical Use Cases
• Health plan selection and enrollment
• Health information exchange
• Data integration and analytics

Key Provider Data Challenges

Significant challenges impact stakeholders' abilities to reliably use provider data to support core business functions and transactions (*Figure 3*). These common administrative pain points present opportunities for industry collaboration.

**FIGURE 3.** **Provider Data Pain Points in Common Use Cases**

Provider Data Use Case	Data Issues
Claims Management	A claim with missing or inaccurate provider data causes payment processing failures or denials, resulting in increased calls to provider support hotlines and health plan outreach to providers to gather and validate information for adjudication.
Referrals	Inaccurate provider contact information results in providers and consumers being unable to locate specialists or other providers.
Credentialing	If health plans and provider organizations are unable to collect and evaluate provider qualifications expeditiously, it will delay when a provider can begin seeing patients.
Provider Directory	Inaccurate provider directories impact consumers' abilities to successfully access network providers, leaving health plans vulnerable for the costs of out-of-network care and subject to penalties.
Program Integrity	Regulators and health plans rely on provider data to ensure program integrity; when data is inaccurate, resources must be allocated to resolve discrepancies, and fraud, abuse and waste may go undetected.
Information Exchange	Inaccurate electronic addresses thwart clinical data exchange among care team members.

The root causes of these pain points (described below) result in costly inefficiencies and are related to several overarching challenges that no one stakeholder can tackle on its own:

1. ***Lack of authoritative and reliable sources result in a costly, piecemeal approach to acquiring and maintaining provider data.*** Today, there is no industry-wide "source of truth" for provider data. Each organization must decide how best to obtain and manage provider data, and identify ways to enhance data with alternative sources that must be extracted, translated and loaded into their systems to meet business needs (*Figure 4*). This leads users to seek out data in piecemeal fashion, requiring data validation and cleansing before the data can support critical business processes. Data validation efforts vary widely. For example, telephone outreach to providers' front office staff is one mechanism used to confirm and update provider data, but staff may not have access to timely and comprehensive information for all providers. As a result, organizations across the industry have made redundant investments where a coordinated, collaborative approach could reduce effort and improve efficiency. Additionally, the quality of the resulting provider data is ultimately limited by the quality of the originating data sources, which can vary greatly depending on their level of quality assurance.

   This piecemeal system has serious cost implications. One analysis estimated that commercial health plans and providers alone spend at least $2.1 billion annually to maintain their provider databases. It was estimated that 75% of those costs could be offset by integrating with an external source of truth, if such a source existed.[16]

FIGURE 4. **Efforts Required to Create an Internal Provider Data Source**

Internal Data Resources

Examples
• Claims
• Credentials
• Licensing

+

External Data Sources

Examples
• American Medical Association (AMA) Masterfile
• CAQH
• National Plan and Provider Enumeration System (NPPES)
• Medicare Provider Enrollment, Chain and Ownership System (PECOS)

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Quality Assurance

Examples
• Third party vendor
• Internal process

=

Internal Data Source
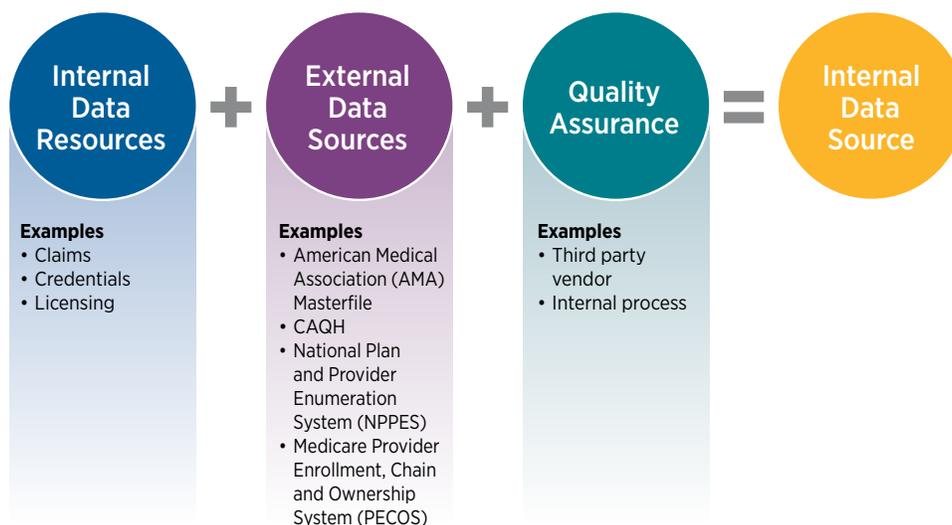
NOTE: For illustrative purposes only.

2. ***The industry lacks definitions and benchmarks for provider data quality, leaving individuals and organizations to define, measure and improve quality in silos.*** Today, there is no industry-wide definition of provider data quality. A framework with six data quality domains—accuracy, completeness, consistency, timeliness, process-ability and accessibility—can be used to assess the quality of data that producers generate. Acceptable levels of data quality will depend on each use case. For example, a high level of data accuracy and timeliness is necessary when a health plan creates a provider network and publishes a directory, but a lower level of accuracy and timeliness may be acceptable when an institution is mailing marketing letters to recruit new providers. Without a widely accepted understanding of data quality, stakeholders are unable to hold each other accountable for the provider data they produce and use, and stakeholders make redundant investments in internal processes to define and measure quality.

The potential quality domains and specific dimensions are depicted below (*Figure 5*).

FIGURE 5. **Provider Data Quality Framework**

Accuracy	Completeness	Consistency
• Verifiability • Acceptable levels and needs: functional vs. absolute	• Field gaps • Record gaps • Conformance to minimum set of standards/requirements	• Data definitions • Data formats • Comparability

Timeliness	Process-ability	Accessibility
• Timeliness of submission and receipt • Rate of necessary refresh/update	• Machine readable • Transport, terminology, container and data-type standards • Backward compatible	• Access to data • Access to systems to make updates

3. ***The healthcare system lacks agreed upon definitions and governance for provider data elements, creating irreconcilable inconsistencies across stakeholders.*** Today, there are few standard definitions for provider data elements that are sufficiently widespread to be considered an industry "standard." For example, the National Uniform Claim Committee (NUCC) developed and maintains a taxonomy for provider specialties and sub-specialties that is widely used in the industry. However, rather than relying solely on it, many organizations have modified the NUCC taxonomy or developed proprietary taxonomies that work well to facilitate internal operations but are not transferable to another provider data user without translation efforts.[17]

Development of standard definitions and an industry-adopted governance framework and approach would create efficiencies and have a significant impact on provider data quality, while reinforcing accountability.

What is Data Governance and Why is it Important?

Data governance is a set of controls and processes that ensure data are properly managed. Data governance assures users data can be trusted to drive business processes and hold producers of poor quality data responsible. Within an organization, data governance may include committees and management structures that establish policies and procedures for data workflows, resolution of data quality conflicts and data acquisition. Applied to the healthcare industry in the context of provider data, it would be a set of processes to assure provider data users that the quality of data they acquire meets agreed upon standards, while holding data producers accountable to the quality of data they generate.

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4. ***Provider data producers and users do not hold each other accountable for high-quality provider data.*** The relationships among provider data producers and users make it difficult for parties to hold each other accountable for provider data. While federal and state provider directory regulations have established requirements and some penalties for health plans, the degree of enforcement remains unclear, and there are fewer requirements for providers. Health plan contracts often contain requirements for provider data. For example, many health plan contracts require providers to alert plans of any changes to their information (e.g., change in phone number or address) within two weeks. Few health plans report enforcing this provision, which may involve a fine or terminating the provider's contract, out of concern that doing so would compromise network adequacy. Without enforcement, health plans, providers and other stakeholders continue maintaining and using provider data that is riddled with errors and inaccuracies. This issue has been highlighted in reviews

of marketplace provider directories. A secret shopper study of the Maryland Health Benefit Exchange found that 57% of psychiatrists in the Exchange's Qualified Health Plan (QHP) networks were unreachable based on information in the Exchange's provider directory.[18]

The lack of accountability among provider data producers and users creates an unfortunate cycle whereby providers and their staff are not accustomed to alerting health plans of changes to their information in a timely manner and may fail to do so until the change impacts their ability to bill and be paid for patient services. As a result, providers may be both unaware of the relevant requirements, and stakeholders may look past providers as key partners in crafting a solution to the provider data problem.

Rethinking Provider Data to Meet Demands of Emerging Payment Models and Delivery Systems

With the growing use of alternative payment models, integrated care delivery and narrow networks, the data needed to track health plan-provider contracting is increasingly complex. In a traditional fee-for-service model, health plans contract with providers at either the group or Taxpayer Identification Number (TIN) level, then collect National Provider Identifier numbers. CAQH estimates 90% of contracts are still maintained this way. However, this method of contracting does not support the evolution occurring in the healthcare system. For example:

- While health plans contract at the TIN level, they often allow for variations dependent upon different practice location and/or practitioners. In turn, each practice location may have multiple TINs. This complexity is multiplied when factoring in providers that practice at these TINs through different provider groups.

- Health plans rely on provider quality measures to inform decisions when creating and managing networks. Provider performance management thus becomes an essential component to contracting for both quality-based incentives and risk-based payment models.

If the healthcare system does not have the necessary data available, the complexities of contractual relationships may result in time-consuming and potentially expensive administrative burden. CAQH analysis of these trends in relation to provider data suggests that traditional contracting will need to extend beyond the TIN level and become more granular to support true value-based care delivery models.

Industry and Public Policy Efforts to Improve Provider Data Quality are Nascent but Gaining Traction

Various industry efforts have emerged in response to provider data challenges. Some examples are described below.

Non-profits and associations bringing stakeholders together to consider, evaluate and implement provider data solutions. Stakeholder collaborations have diverse participants and range from industry-wide efforts open to all stakeholders to targeted efforts addressing a specific provider data issue for a particular market segment. For example:

■ Non-profit industry alliances work with their membership to address one or more issues critical to their members' missions and operations. Examples of such alliances include:

   ● CAQH—A non-profit alliance of health plans and related associations working to achieve business efficiencies that benefit providers, health plans and patients.[19] In response to its members' needs, CAQH develops solutions that reduce the administrative burden of collecting provider data, managing provider directories, monitoring provider sanctions and facilitating electronic funds transfer (EFT) and electronic remittance advice (ERA) transmission between health plans and providers.[20] More than 1.4 million providers currently share data with CAQH with up to 600 data elements per provider.

   ● Federation of State Medical Boards (FSMB)—"A national non-profit representing the 70 medical and osteopathic boards of the United States and its territories,"[21] the FSMB aggregates member-provided licensure and disciplinary data, making the information available to state medical boards to support operations.

■ Standards Developing Organizations (SDOs) such as Health Level Seven International (HL7), the American National Standards Institute (ANSI), and others work with their membership to develop, coordinate, publish and maintain standards.[22] Some SDOs have published standards focused on business functions that involve provider data elements and their exchange, but not explicitly for it. For example, the Argonaut Project operated by HL7 is advancing the development of standards and data services to enable the sharing of information contained within EHRs, which includes aspects of provider data, to support web-based and mobile applications.[23]

While these efforts only represent pieces of the provider data puzzle, they represent an important resource to solving the larger provider data problem— industry collaboration.

Non-profit, for-profit, state and federal entities are developing tools to ease the provider data burden on health plans, providers and regulators.

Some organizations are developing tools that address the provider data problem. Non-profit, for-profit, state and federal entities are developing tools to ease the provider data burden on health plans, providers and regulators. These are valuable resources for stakeholders but may lead to duplication of efforts. These tools include:

- Online portals that serve as a central location for collecting and distributing provider data;
- Services that verify provider data through electronic correspondence or phone calls; and
- Analytics that utilize claims to evaluate and report on the efficiency and quality of healthcare administrative transactions and their underlying data.

Many organizations choose to outsource all or some aspects of provider data management to a third party. Organizations report varying levels of satisfaction with these services and emphasized the importance of understanding the methodology and data sources employed by the services prior to outsourcing provider data functions.

Regulatory and policy initiatives are increasingly addressing provider data challenges across the country. Market forces and trends have heightened state and federal policymaker awareness of the provider data problem and its downstream effects across the industry, especially for consumers. As a result, recent policy and
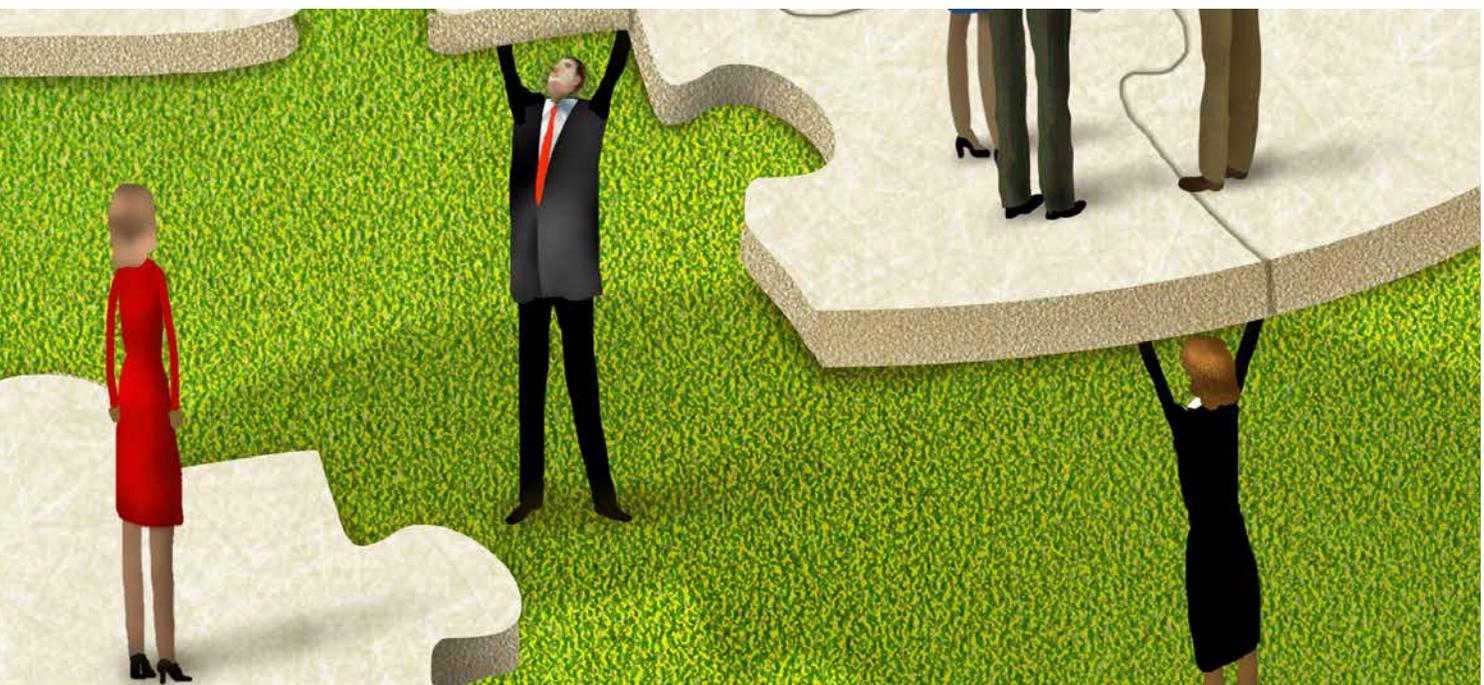
regulations reflect a growing, national acknowledgement of provider data challenges and the implications of poor quality data as consumers seek coverage and care. These requirements impact provider data needed for network adequacy, online and print provider directories, health insurance exchanges and other reporting purposes. Two examples of such efforts include network adequacy and provider directory regulations and guidance.

- *Network Adequacy*—The New York State Department of Health developed standards for health plan submission of provider data for Medicaid, Marketplace, and commercial health plan network adequacy review.[24] All health plans submit information in a standard format and process for all products offered in New York and their respective provider networks.

- *Provider Directory*—Recent rules and guidance from CMS establish provider directory requirements for Medicare Advantage, Medicaid Managed Care and QHPs.[25] These requirements address provider directory format and accessibility, frequency of updates, mandatory data elements and penalties should health plans fail to comply. In late 2015, the National Association of Insurance Commissioners, an association of chief insurance regulators, finalized model legislation establishing a minimum data set health plans should make available via searchable provider directories and requiring at least monthly updates to provider data.[26]

Growing Regulatory Requirements

In the past two years, over 25 states and the District of Columbia, as well as Medicare, Medicaid, the Federally Facilitated Marketplace and the National Committee for Quality Assurance have released requirements for provider data displayed in a health plan directory. Four of these states and Medicare Advantage require health plans to validate the data displayed in a provider directory with providers on a regular basis, and other states have indicated they may adopt this practice in the future.

There is increasing awareness these requirements will place a significant burden on providers and health plans, unless the industry coordinates efforts. In an effort to reduce the provider burden, CAQH launched a multi-payer initiative to streamline outreach. In the last seven months, more than 500,000 providers responded to CAQH proactive outreach requesting that they update provider directory data, as necessary and attest that it is accurate and up-to-date.

Call to Action

Accurate provider data is increasingly important as delivery system and payment reforms evolve and the healthcare system continues to digitize. Given the common needs and challenges outlined above, there is significant opportunity for the industry to collaborate to develop and implement a roadmap toward high-quality provider data. Below are specific recommendations for collective action to advance provider data quality.

1. ***Create multi-stakeholder alignment to expedite progress, avoid fragmented investments and ensure sustainable and reliable results.***

Stakeholders generally operate in silos to improve what data they can obtain. Any effort to address the provider data dilemma will require multi-stakeholder collaboration, coordination and commitment. Collaboration could involve public-private partnerships or facilitated processes that leverage the expertise and assets of all data producers and users. To be successful, all participants must be meaningfully engaged such that solutions are developed through consensus and address data producers' and consumers' critical needs and challenges.

All stakeholders have a vested interest in provider data, yet there are no clear organizing entities or processes leading the provider data dialogue. There is an opportunity for the industry to look within to identify or create an organizing framework and leadership that will work through provider data challenges. The industry may not come to clear consensus, but a coordinated dialogue that facilitates diverse stakeholder perspectives will be invaluable to identifying strategies that address challenges and improve provider data quality.

Provider engagement will be critical to this multi-stakeholder process. Any approach must both reduce the administrative burden on providers, and also hold them accountable for their role as data contributors. Provider associations and partners can bring the perspective of their members to the discussion, while subsequently helping to inform and engage them in the activities required to achieve success.

2. ***Define a minimum data set and quality thresholds to ensure that all stakeholders are collectively working toward the same goal of producing and using "high-quality" data.***

Claims processing, network management, credentialing, licensing and other regulatory and business processes require a core set of data elements. By defining a minimum data set and establishing definitions, specifications and measures of quality through a collaborative, multi-stakeholder process, all stakeholders can share

in the solution and hold data producers and users accountable to agreed-upon standards. Many of the overlapping data elements that comprise the minimum data set driving critical use cases are outlined below (*Figure 6*).

FIGURE 6. Minimum Provider Data Set for Industry-wide Discussions

Data Category	Core Static Data Elements	Core Dynamic Data Elements
Demographic data	• First and last name • Date of birth • Gender • Medical education • Specialty/subspecialty • SSN • Languages spoken • National Provider Identifier (NPI) • Medical license number • DEA number	• Email • Phone number • Privileges
Facility or organization-level data	• Institution name • Taxpayer Identification Number(TIN)	• Health plan product participation • Network affiliations • Accessibility, hours of operation

Collaborative efforts to establish a minimum data set will have limited impact if not accompanied with industry-accepted definitions, processes and quality standards.

Collaborative efforts to establish a minimum data set will have limited impact if not accompanied with industry-accepted definitions, processes and quality standards to which provider data producers can be held accountable.
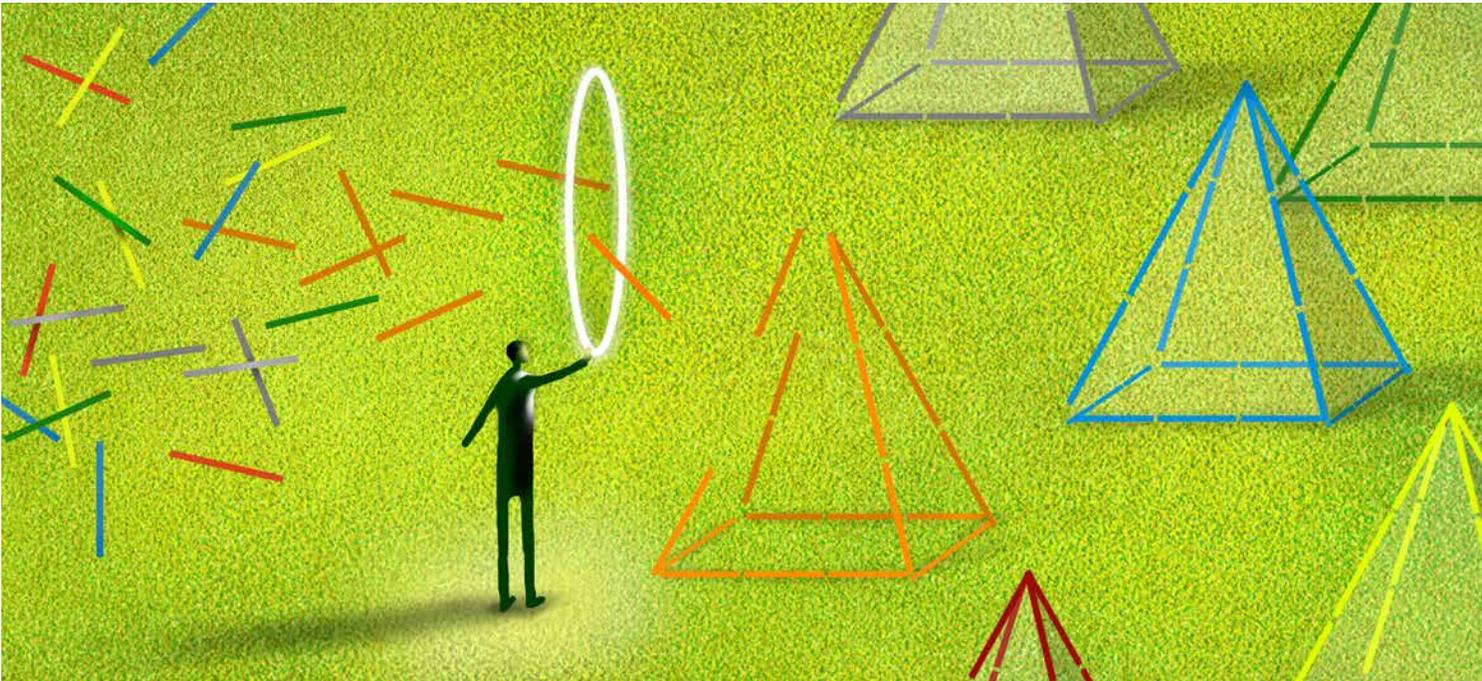
3. *Establish provider data governance and accountability.*

As the industry defines a minimum data set and quality thresholds, it must delineate the roles, responsibilities and mechanisms for accountability. This could be supported through an industry data governance approach. Such an approach needs a significant level of transparency that supports measurement and reporting of data quality standards by producers and users. It also needs to define corrective actions and steps to address data quality problems as they arise and consider federal and state policy issues (i.e., laws and regulations). Data governance is typically supported by a formal entity or corporation; in this case, data governance will likely need to be virtual or federated to accommodate different markets, stakeholders and law. Data governance in the context of provider data management may therefore not be through an organization that has jurisdiction to directly sanction data producers and users per se, but could be a collaborative that acts as a sentinel to identify issues for federal and state regulators and non-governmental industry stakeholders to take action.

All stakeholders that produce or use provider data must have a role in a data governance model. The path to data governance must be transparent, inclusive and not overlook the value that any one sector may bring to the provider data ecosystem and role they can play in solving the provider data problem.

4. *Institute constructive policies that support resolutions to provider data problems.*

Policymakers are important collaborators as the industry makes progress on any of these recommendations. The path toward a sustainable solution will take time, resources, collaboration and innovation. Coordination between policymakers and industry partners is critical to ensure policies are constructive, support broad industry needs, allow for ongoing improvement and promote innovation. Provider data challenges are highly complex and involve many necessary stakeholders. As such, policies should focus broadly on the primary objective—producing high quality provider data—and industry stakeholders should develop and implement processes to achieve that goal. Any regulatory efforts should also be synchronized between federal and state governments and across states to avoid duplicative or conflicting efforts, and have the greatest impact across the entire healthcare system.

* * *

Provider data producers and users are interdependent; no constituency can unilaterally resolve the problems faced by the industry. An industry solution must take into consideration the needs and challenges that all stakeholders face, be they consumers, providers, health plans, HIEs, policymakers or regulators. By addressing barriers, developing service level and quality standards and clearly defining accountability together, the industry has an opportunity to resolve inefficiencies that have plagued the healthcare system for decades. The time to act is now. The industry is at continued risk of wasting precious resources while compromising delivery and coordination of patient care.

Notes

1   *Issue Brief: Administrative Provider Data*. CAQH [Analysis completed by Booz & Co., now Strategy&, Inc.] (December 2011).

2   "How does health spending in the United States compare?," OECD Health Statistics 2015, https://www.oecd.org/unitedstates/Country-Note-UNITED%20STATES-OECD-Health-Statistics-2015.pdf (July 2015).

3   "2015 Employer Health Benefits Survey," Henry J. Kaiser Family Foundation, http://kff.org/health-costs/report/2015-employer-health-benefits-survey/ (September 2015).

4   Twenty-four percent of workers were enrolled in a high-deductible health plan in 2015, up from about twenty percent in 2014. Sean P. Keehan, et al., "National Health Expenditure Projections, 2015–25: Economy, Prices, And Aging Expected To Shape Spending And Enrollment," *Health Affairs*, http://content.healthaffairs.org/content/early/2016/07/12/hlthaff.2016.0459 (July 2016).

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