Unsustainable healthcare costs are driving seismic changes in the way payers do business. All healthcare stakeholders face significant pressure within the framework of value-based care to cut costs while improving clinical outcomes and population health. Forward-looking operational and clinical leaders recognize that they must invest in innovative approaches and technology, such as automation, analytics, and artificial intelligence, to stay relevant and competitive in a dynamic marketplace.

Although the ability to extract deeper insights from data assets sits at the heart of many strategies, the volume of data generated in healthcare today is overwhelming. Estimates have suggested that the total amount of data doubles every 3 years, and by 2020, it is projected to double every 73 days.1

Getting in front of this exponential data expansion is a significant challenge for most organizations as they try to optimize the quality of information used to drive decision making. The good news is that the aim of having quality data that are accurate and reliable is achievable with the right infrastructure and strategy in place.

The Power of Data Quality

Today’s payers are striving to transform and enrich their data for mission-critical activities, such as claims processing, quality reporting, and member management and support. This process includes assembling all available data sources, extracting data from unstructured text, normalizing or codifying disparate information to common standards, and categorizing data into clinical concepts.

For most health plans, this is a strenuous exercise, largely because so much disparate data remain locked in silos. For example, a payer involved in a population health initiative will need to collect data from a variety of sources, including claims and electronic health records (EHRs), as well as emerging areas such as telehealth, genomics, and social determinants of health. Without a way to integrate data from each of these areas, payers risk negative consequences that affect quality measures reporting, billing, and member engagement.

To understand the challenge, consider a population health initiative aimed at improving diabetes outcomes. The initiative will require analyzing laboratory data on glycated hemoglobin, a common glucose test that may be represented more than 100 different ways. As payers assemble the laboratory data and other clinical information from various sources, they will encounter the following: claims and EHR data (codified in Current Procedural Terminology; International Classification of Diseases, Tenth Revision [ICD-10]; Healthcare Common Procedure Coding System; and other terminologies), semistructured clinical data such as laboratory results (Logical Observation Identifiers Names and Codes [LOINC] and local notations), and unstructured text, such as the patient’s medical history in the medical record. All these data
must be normalized for consistency before a 360-degree view of the patient can be established—and before the population health initiative in this example can hope for success. Only normalized, interoperable clinical data can provide an accurate and reliable foundation for quality care and effective analytics.

Building a Framework for Data Quality
A multifaceted strategy that engages technology, expertise, and the right processes is essential to ensure data quality. Such a strategy must address terminology management and data governance from 3 vantage points:

Establish a single source of truth through reference data management. Effective management of reference data is foundational to any data quality strategy. Comprising industry health information technology standards—such as ICD-10, RxNorm, LOINC, and SNOMED CT—and other proprietary content, reference data provide the building blocks for analytics by establishing a framework of interoperability that supports the free flow of information among systems. An optimal reference data management (RDM) strategy includes oversight and ongoing maintenance of enterprise assets to ensure that all stakeholders are accessing up-to-date terminology standards and a single source of truth for accurate analytics and reporting.

Advanced solutions exist to automate these functions and help healthcare organizations optimize 4 key tenets of an RDM strategy: (1) establishment of a single source of truth for all code sets used across the enterprise, (2) list management that represents clinical concepts from different terminologies, (3) integration and distribution of data into existing enterprise infrastructure, and (4) data governance that aligns people, processes, and technology.

Normalize clinical data to standards. Data normalization solutions can automatically map nonstandard clinical data such as local laboratory results and drugs to the standard terminologies maintained as part of an RDM strategy. This process establishes semantic interoperability of data among disparate systems and across the healthcare enterprise. Due to the volume of disparate data that exists, the business case for leveraging automation is an easy one to make. Automated data normalization can help eliminate burdensome, error-prone, manual processes and ensure nothing is missed.

Unlock unstructured data with clinical natural language processing. To ensure data quality, healthcare organizations must address challenges with data captured in free-text fields. Unstructured data account for as much as 80% of clinical documentation, thereby locking up clinically relevant patient information and making it unusable for downstream initiatives. Clinical natural language processing solutions provide a foundation of comprehensive clinical content and provider-specific synonyms and acronyms to extract valuable data, such as problems, diagnoses, laboratory results, medications, and immunizations from unstructured text, so that practitioners can use the data to improve health outcomes and increase quality of care.

The Future of Data Governance
Investing in data governance and RDM will be critical for health plans as the federal government increases its focus not only on improving interoperability but also on eliminating obstacles to patient access to their information: In February 2019, the Office of the National Coordinator for Health Information Technology (ONC) and CMS proposed separate but related rules requiring that patients have easy access to their health data.

ONC and CMS recognize that health plans will need time to adopt the technology and standards integral to interoperability, but both agencies will be pushing forward with these requirements as soon as possible, with the final ruling expected as early as the first quarter of 2020. The onus is on all stakeholders to consider what will be required of them. For health plans, that means viewing interoperability through a much wider lens than the one they have been accustomed to—and that means change.

Health plans will need to invest in modernizing their technologies and system architectures, including adopting master data management strategies, to enable interoperability. They will need to make process changes to ensure information is not siloed and to enable information sharing. With the right investments in improving the quality of data by establishing a single source of truth, normalizing structured data to standards, and unlocking unstructured data, payers will be able to draw deeper insights into their own data and help ensure success in the competitive healthcare marketplace.

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Authorship Information: Concept and design; drafting of the manuscript; critical revision of the manuscript for important intellectual content; and supervision.
Send Correspondence to: Brian Diaz, BS, Senior Director of Strategy, Wolters Kluwer, Health Language, 4600 S Syracuse St, Ste 1200, Denver, CO 80237. Email: Brian.Diaz@wolterskluwer.com.

REFERENCE