



Creating a treasure trove of data for health plans

Shifting focus from disparate systems to a connected future

In today's rapidly changing health care landscape, one major trend has remained constant: Many health care organizations are integrating technology initiatives into broad organizational performance improvement strategies in order to stay competitive. Your organization's ability to not only keep up with those changes but also get ahead of them could be the competitive advantage you need to firmly grasp a leadership position in this new health care ecosystem. For more on Deloitte's solutions and services, visit www.deloitte.com/us/HIT.

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Executive summary

TODAY, HEALTH PLANS gather and report data for many purposes. They require physician practices to report data from health records for quality reporting and collect diagnoses from claims and other sources to support risk adjustment. They also use data from these sources and others for population health and care management initiatives by identifying individuals at risk for high health care spending. Often these functions are separate and uncoordinated.

We envision a world where health data is interoperable, continually updated, and reflects much deeper insights into the drivers of health and health care costs.

We see two types of opportunities for health plans to manage this data more efficiently over the next three to five years. Health plans should:

- Coordinate the data and processes at the functions that support data with an enterprisewide strategy; and
- Automate aspects of data collection and reporting using tools like robotic process automation (RPA), natural language processing, and artificial intelligence (AI).

As recipients of this data, government agencies—like Medicare and Medicaid programs—also might consider long-term strategies to evolve systems in ways that reduce burden and improve efficiency and adherence to program goals.

Even as health plans and government agencies consider opportunities to do this work more efficiently, a view to the future might help these stakeholders anticipate how technology will transform data collection and analysis. We envision a world where health data is interoperable, continually updated, and reflects much deeper insights into the drivers of health and health care costs. In such a world, which Deloitte believes we might see by 2040, the very nature of activities like quality and

risk measurement and population health management could change. For example:

- Up-to-date information on health behavior, past health care use and conditions, and information derived from remote monitoring could combine to explain much more of people's likely spending—leaving just a residual amount of accidents for insurance risk to account for.
- Quality measurement could become more comprehensive across all aspects of health and well-being and easily reflect outcomes, such as improvements in function. Quality measurement could encompass patient-driven and -reported measures, as well.
- Population health management would evolve to prevent disease, rather than manage the care of people already likely to be heavy users of health care.

Though that world seems far away today, the savvy organization should invest in a strategy with an eye toward the future of health.

Introduction

TODAY, THE DATA that gives insight into a person's health, use of health care, and the quality of the health care they receive is scattered across tens if not hundreds of systems, and some is not captured at all. While many health plans have taken steps to sort the data treasure from the junk, the systems, reporting activities, and people using the data are, for the most part, disconnected. We sought to better understand how health plans are managing this data today by interviewing senior leaders at seven Medicare Advantage (MA) health plans and two vendors

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that provide analytics solutions. (See sidebar, “Incentives to improve MA performance underscored by the three-legged stool.”)

INCENTIVES TO IMPROVE MA PERFORMANCE UNDERSCORED BY THE THREE-LEGGED STOOL

MA's characteristics make it one of the more popular areas to test new payment models. Financial levers create incentives for MA plans to proactively identify and manage member risks, costs, and unnecessary utilization to operate successfully under capitated payments and to improve care coordination and outcomes for members. And this is the crux of the shift to new payments based on outcomes and risk.

Strong performance under these conditions hinges on three key functions within MA plans—the three-legged stool: risk adjustment, quality improvement and measurement (through Medicare Star Rating initiatives), and population health and care management. This makes MA a fertile testing ground for combining the right incentives with improvements in data collection, analytics, and efficiency.

The current state

WE ASKED THESE leaders to reflect on the state of their operations around how they collect, manage, organize, and use health data. We asked about three specific functions of the organizations, as they tend to be the most data-intensive areas for health information: risk adjustment, quality improvement and Star Ratings, and care management.

Use of data is often duplicative and not well-aligned

Most respondents said that all three functions consistently use abstracts from medical records,

claims data, and enrollment data. Some leading organizations said they are beginning to use electronic medical record (EMR) feeds (rather than scanned records) to capture diagnoses for risk adjustment and to identify quality improvement opportunities (see figure 1).

Few organizations are using data that is not associated with patient visits. For example, there is minimal use of patient lifestyle information (for example, shopping patterns) and mHealth sources (such as mobile apps connected to patient portals, wearables).

None of the interviewed organizations have fully integrated the data, people, technology, and processes involved within these three functions to

FIGURE 1
Few organizations use non-health data to inform risk and quality measurement or care management

	Risk adjustment	Quality/STAR ratings	Care management
EMR abstracts	MOST		
Electronic EMR feeds	LEADING		
Claims data	MOST		
Enrollment data	MOST		
In-home assessment data	MOST	FEW	LEADING
Disease management program data	LEADING	LEADING	MOST
Patient lifestyle information (e.g., shopping patterns)	FEW		
mHealth data	FEW		
Remote monitoring devices	FEW		
Survey data (e.g., patient experience)	FEW		

Source: Deloitte analysis of responses during qualitative interviews.

form an enterprise view. Most respondents said the functions tend not to coordinate and that the data collection and dissemination processes could be streamlined and more efficient. They also acknowledge these issues often lead to strained relationships with members and providers.

The data around these programs may also be failing to meet the needs of regulators. For example, the current US Centers for Medicare and Medicaid Services (CMS) hierarchical condition category (HCC) model for measuring risk explains approximately 11 percent of variation in Medicare spending. However, research from the Medicare Payment

and Advisory Commission (MedPAC) suggests that as much as 20–25 percent of variation can be predicted, which means that approximately half of predictable variation in spending is going unmeasured.¹ This can create inefficiencies for both health plans and regulators. Indeed, the requirement to prove diagnoses for the purpose of receiving accurate payments means that health plans must track down every known bit of information about each patient, most often in the form of claims data and diagnosis codes. An entire industry has been set up around the collection, analysis, and submission of data for the purpose of risk adjustment, which has

HEALTH PLANS SHOULD CONSIDER COMPLIANCE ISSUES AS THEY INCREASINGLY RELY ON DATA

Even as plans invest in improvements to their data and systems, they should do so with an eye toward current and future regulatory requirements. For example, plans can violate the False Claims Act (FCA) if they knowingly submit claims to CMS that are inaccurate or ineligible for payment under CMS rules. Many actions can result in a violation. Some examples include:

- Paying claims for procedures providers never performed;
- Upcoding diagnoses to exaggerate the severity of members' conditions and improperly increase the capitation rate the MA plan receives for those members;
- Conducting chart reviews in which the reviewers only upcode diagnoses and/or look for new risk adjustment claims, and fail to correct invalid, inaccurate, or unsupported diagnoses;
- Creating incentives for doctors, hospitals, or other providers to upcode and submit diagnosis codes for conditions which the member does not have or for which the member was not treated;
- Directing coders to look beyond physician-documented diagnoses to upcode diagnoses based on other evidence in medical records (for example, medications, laboratory test results, radiology reports, or histories);
- Failing to properly review and correct data submitted to CMS to generate risk-adjustment claims; and
- Performing an internal audit of the validity of risk adjustment data submitted to CMS but failing to alert CMS of any invalid, incorrect, or unsupported diagnoses identified.

FCA lawsuits are civil actions filed by the US Department of Justice or by whistleblowers on behalf of the federal government (called *qui tam* filings), usually under seal. The majority of states have their own version of the FCA, and lawsuits are typically filed on behalf of the states. In addition to statutory penalties per false claim, actual damages can be trebled under the FCA, and there are provisions for the recovery of costs, including attorneys' fees. Fraudulent billing schemes can also be criminally prosecuted under several federal and state criminal statutes.

also led to more government scrutiny around data submissions. (See sidebar “Health plans should consider compliance issues as they increasingly rely on data.”)

Most respondents said their risk adjustment, quality, and care management functions are partially or totally segregated

Most respondents said their organizations aim to integrate and align risk adjustment and quality functions. But they also said these plans are either in early stages or strategies are still being mapped out. Some are establishing centers of excellence, while others are creating senior-level positions that focus on risk adjustment and Stars. Many are moving quality program management (Healthcare Effectiveness Data and Information Set [HEDIS] and Star Ratings) from under the chief medical officer into the finance or government programs function.

However, most respondents indicated that their organization finds it difficult to integrate people and data from the care management function with the other two functions. Care management functions at most organizations are separate, sitting in the medical management function and most often reporting to the chief medical officer. While several respondents said the ideal future state would be integration of care managers with risk and quality functions—with data harmonized across all functions—they are far from doing this.

None of these organizations have arranged their operating model, data, and systems to facilitate seamless handoffs between these functions. Most are working to identify overlap across functions, but different individuals lead improvement and change efforts in each area.

A key question for many: Build it or buy it?

While some health plans are expanding capabilities through vertical acquisitions (see sidebar, “Vertical acquisitions help health plans build capabilities”), most are outsourcing or partnering with vendors to accomplish the most resource-intensive tasks. Many respondents said they aim to bring some capabilities in-house, often because they—not the vendor—pay the price if the data is incorrect. Some are further along than others in this process. Importantly, most of the respondents said that there is no “one-stop-shop” vendor that is helping organizations step back and do a complete assessment of their data, people, and processes.

Most organizations are still determining how emerging technologies will play into their future analytics strategies

While most acknowledged that emerging technologies, such as cognitive computing and AI, could help them radically transform their strategies across the functions, several said they do not see technology as a panacea. These individuals believe they should focus on capitalizing on the potential of the technology they already have before investing in emerging technologies. They also said that putting

CASE STUDY

Vertical acquisitions help health plans build capabilities

Blue Cross Blue Shield of Minnesota (BCBSMN) is owned by Stella, which also owns several other ventures involved in the health plan business. As part of its broader innovation strategy, Stella recently acquired a minority ownership in Talix, Inc., a company that uses natural language processing tools to support risk adjustment and quality analytics functions at health plans.

in place the right people and processes to make the most of their current technology investments is more important in the short term than adopting the newest and greatest technologies. This is likely because using emerging technologies such as AI and predictive analytics on siloed, incomplete data sets may only lead to more siloed and incomplete solutions.

Many health plans spend a significant amount of their technology budgets maintaining their current investments rather than improving them or making new investments.

Several of the organizations we spoke to are early adopters of emerging technologies, such as robotic process automation and natural language processing. These tools can be useful in scanning medical records and combing unstructured data, which all three functions regularly do to support their initiatives.

Barriers to integration include issues with IT, finance, people and process, and vendors

The main barriers to using data more seamlessly are typically IT capabilities and financial

investments, people and process issues, and lack of coordination among vendors. For example, IT capabilities are varied across organizations and even within functions. Many health plans spend a significant amount of their technology budgets maintaining their current investments rather than improving them or making new investments. This commonly results in a “see problem, fix problem”

approach: As individual IT barriers arise, more capital is shifted to one-off solutions. This approach can leave little budget flexibility to make strategic, enterprise-level technology purchases. Moreover, the lack of a “one-stop-shop” vendor makes this even more difficult.

Several organizations said they encountered significant issues with aligning people and processes across functions, and some mentioned a lack of leadership alignment. For example, functional leaders may want to own the process and be reluctant to give up control. Unique processes—whether internally driven or as a function of compliance requirements—may also make it difficult to align the functions. Programs often have different timelines, making some parts of the year more resource-intensive than others. For example, HEDIS data collection and submission occurs over the spring, while risk-adjustment submissions occur on a rolling annual basis.

Improving efficiencies in the short term

HOW CAN HEALTH plans take steps toward the future—a world where data is seamlessly coordinated and continually updated? They can start by organizing more efficiently around the current systems in place. Health plans should consider applying an enterprisewide approach to understanding where the data is, overhauling current processes to optimize the flow of data, and adopting emerging technologies to further enhance their performance.

Understand where the data is

Query the functions on typical touchpoints, areas of overlap, and how they can be streamlined. Health plans are swimming in a sea of patient data. This data is often unconnected and unorganized—and sometimes unusable. One leading organization said that one of its initial steps to integrating these functions was to regularly convene teams to discuss and map out overlapping processes and use of data sources.

Develop a streamlined approach to collect data from and target services to members. A map of typical member touchpoints can show the sometimes dozens of interactions that health plans have with each member. For example, a member may receive calls or mailers related to the management of a specific chronic condition, a request to fill out a Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey, and an explanation of benefits, all from separate teams at the health plan and all within the span of a week. Not only could these outreach strategies strain member

relationships, they could also lead to suboptimal impact and overspending.

Find and collect new data sources. Teams should also consider pulling data from new sources to help inform their efforts in these functions. For example, some leading plans are using patient activation measure (PAM®) scores to tailor interventions. PAM® scores can help health plans understand where their members fall along a spectrum of activation in their health care. Those in the early stages of activation could need interventions designed to increase knowledge about their condition and treatment. Patients at later stages could need interventions designed to increase their skills and confidence in self-management tasks.

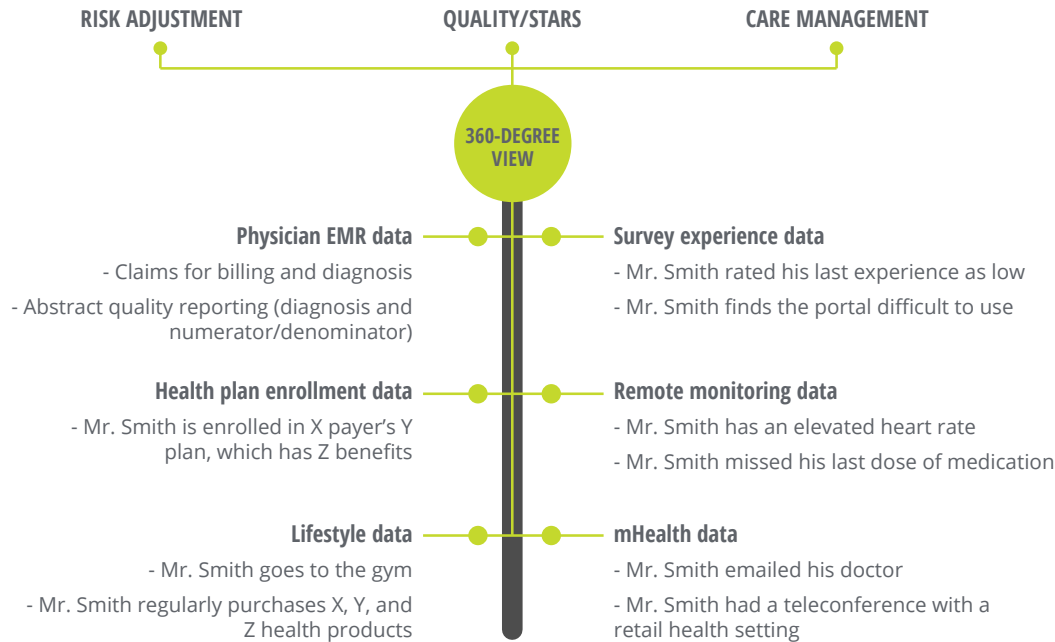
Reorganize processes around optimal data flow

Take an enterprise approach to integrating data, people, technologies, and processes. Creating an enterprise view could fundamentally shift the way teams access, process, and use data. Teams that work in these functions often have a narrow focus, pulling only data they are looking for. Processes should be reworked so that teams receive data that helps them build a 360-degree member view (see figure 2).

For example, if someone on the risk adjustment side captures a new diabetic code for an individual with a heart condition currently being supported by the care management team, this is immediately pushed out to the care management team.

FIGURE 2

Data feeds—and people and processes to support them—should flow from the patient outward



Source: Deloitte analysis.

Assess, or build if necessary, programs and methods to engage clinicians and provider organizations. Developing clinician-level analytics to understand treatment, prescribing, referral, and coding patterns can help health plans begin to understand and possibly influence the way clinicians practice and how they submit data to inform these programs. This data can then be used to create strong financial incentives and clinician engagement programs.

Plans may also need to bring clinicians to the table more often. For example, having clinical expertise embedded into the plan operating model could allow the organization to enhance the use of suspect medical condition data.

Leverage relationships in advanced markets where provider organizations have stronger alternative payment model capabilities, and build incentives into new payment arrangements. This may begin with an assess-

ment of providers in the network to understand where they sit on the value-based care (VBC) maturity scale. Those that are farther along the journey to VBC, especially those with more experience in downside risk, may be more capable of improving quality and closing HCC and care gaps.

Develop compliance programs of the future. Data—whether health or financial in nature—can give health plans a strategic advantage in managing *patient care* or *financial outcomes*. But it can also give health plans a strategic advantage for managing *risk*. As organizations rework processes around data collection and use, they should also take the opportunity to enhance the data collected and made available for their compliance programs. Much of the same underlying data being collected, aggregated, and analyzed for patient care or financial performance could also be used by compliance teams to understand and manage compliance risk. Compliance leaders should be engaged early in the

data transformation process to provide input into what and where relevant data may be available, and to help design processes, dashboards, and reports to best use the data to manage compliance risks.

Adopt new and emerging technologies as tools to use data and processes more effectively

Emerging technologies in cognitive computing and AI can offer myriad opportunities to enhance operations and analytics capabilities, especially in such data-driven organizations as health plans. New technologies can be applied to old problems to gain significant operational efficiencies. (See sidebar, “Case studies.”) Moreover, health plans should devise a thoughtful strategy for adopting new technologies, as prioritizing where to invest first and recognizing what technologies will likely bring the greatest ROI to the organization are just as important.

Develop new roles and skill sets. As emerging technologies allow for more data aggregation and automation of tasks, especially in data-intensive functions, leaders may need to assess the skill gaps at their organizations. They may find that their teams need more training and support in these new fields as roles shift away from data searching, cleaning, and organizing toward applying new automated technologies to drive and communicate insights. As in the natural language processing case study (see sidebar, “Case studies”), these technologies should be paired with the right talent, such as certified coders, to verify if the extracted data is correct.

CASE STUDIES

Natural language processing helps give structure to unstructured data

Accurate risk adjustment payment depends on a health plan's ability to justify its scores by assigning the correct codes for disease conditions. But the process can be labor-intensive, as it involves combing through millions of documents of unstructured data. One health plan recently partnered with Health Fidelity, a startup company focusing on big data and natural language processing. In 2014, they deployed HCC Scout, an application that processes large sets of patient records and provides coders with appropriate risk adjustment suggestions.²

Using AI to streamline risk adjustment efforts

Hill Physicians, a provider-sponsored MA plan, found that collecting charts for risk adjustment was a time- and resource-intensive process, often requiring teams to go in person to individual offices to collect copies of charts. And sometimes, physicians' offices refused to retrieve charts because of the time it took for their staff to support the task. Hill Physicians turned to Apixio and its AI and machine learning tools to streamline the process. Apixio scans physicians' notes in medical charts to find supporting data to submit for risk adjustment purposes. The staff can now more accurately audit more charts in less time.³

What the future may hold

Using “always-on” data to enable “always-on” care

Looking forward to 2040, we predict that the health care system we know today will look completely different. We envision a future of health wherein, by using actionable health insights driven by radically interoperable data and AI, we should be able to identify illness early and intervene much more quickly. This can pave the way for a future focused more on well-being rather than treatment.

In the future of health, the “always-on,” sensor-driven environment will generate massive amounts of data—data that is continuously gathered and stored by multiple owners and selectively made available. The data will come from traditional players—health plans, providers, government regulators—and nontraditional players—digital giants, retailers, consumers. This kind of radical interoperability will enable seamless integration of multiple, disparate data sources and applied advanced analytics to derive real-time insights to improve the patient experience and drive the delivery of “always-on” care.

As we describe in *The health plan of tomorrow: Disruption is picking up pace*, we envision a future in which health plans will be focused on one or more of three fundamental roles that will be the value drivers of the transformed health care industry:

- **Well-being and care delivery.** Health plans will need to be closely aligned with care delivery teams in order to be a steward to their members’

well-being and care in the future. Roles will evolve to focus on becoming a localized health hub and enabling consumer-centric care models delivered virtually, at home, or in the community.

- **Care enablement.** As the focus shifts to enabling member well-being and care, health plans will develop a new take on the traditional role of “financer” as their business models shift to look beyond adjudicating and paying claims. This shift in mindset will result in a new line of products for consumers.
- **Data and platform.** Finally, health plans will begin to move beyond using data to support compliance and reporting functions to become data conveners, science and insight engines, and/or data and platform infrastructure builders. Digital technologies to reduce cost of care, streamline processes, and achieve better outcomes will no longer be differentiators—they will be fundamental for any organization operating in the health care industry.

In this future, we can envision that many of the systems—measurement and payment—will change. For example, business models of the future may be set up around utilizing up-to-date information on health behavior, past health care use and conditions, and information derived from remote monitoring. If this data is not only combined, but also continually updated and pushed out, health plans and regulators alike will likely be able to account for—and predict—more of their patients’ potential spending. Under this scenario, the programs described herein would shift.

Health plans are running short on time to adapt as the pace of disruption picks up across the industry.

Risk adjustment

While health plans can employ new data techniques to reduce submission and payment error in the short term, by 2040, the need for risk adjustment—and teams, processes, technologies to support it—may be minimized. The risk that would remain would be accounting for accidents, which would still need to be predicted, measured, and adjusted for. Risk adjustment models that are based on complete and timely data that includes the complete picture for every patient could be more accurate and dependable.

Quality measurement

In the future, quality measurement could shift away from “tracking what we can measure” toward “tracking what we want to measure.” For most patients, that means reaching their goals—whether it is improvement in function, restoring function to its state prior to injury, reaching goals set for themselves, or something else. Under this future vision, the industry will revolve around patients and their needs. And already, patients are demanding more. Indeed, the 2018 Survey of US Health Care Consumers found that 62 percent of consumers would change doctors if they were dissatisfied with the way they communicated.⁴ In a world where platforms

are enabled by continually updated data, tracking and measurement of these needs would be seamless. Moreover, patient satisfaction could increase.

Population health and care management

Finally, the population health and care management programs that we know today would evolve to prevent disease. Today, these programs are largely focused on managing the care of people already likely to be heavy users of health care. They are people- and time-intensive, as today, many of these patients can be difficult to find and track. More importantly, the programs often result in low to moderate improvements in outcomes. Shift to the vision of the future, where business models are structured around sustaining well-being and are enabled by predictive technologies and comprehensive data on each and every patient.

Conclusion

Health plans are running short on time to adapt as the pace of disruption picks up across the industry. While the future of health may still be over the horizon, health plans should consider taking steps now to prepare for that future.

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